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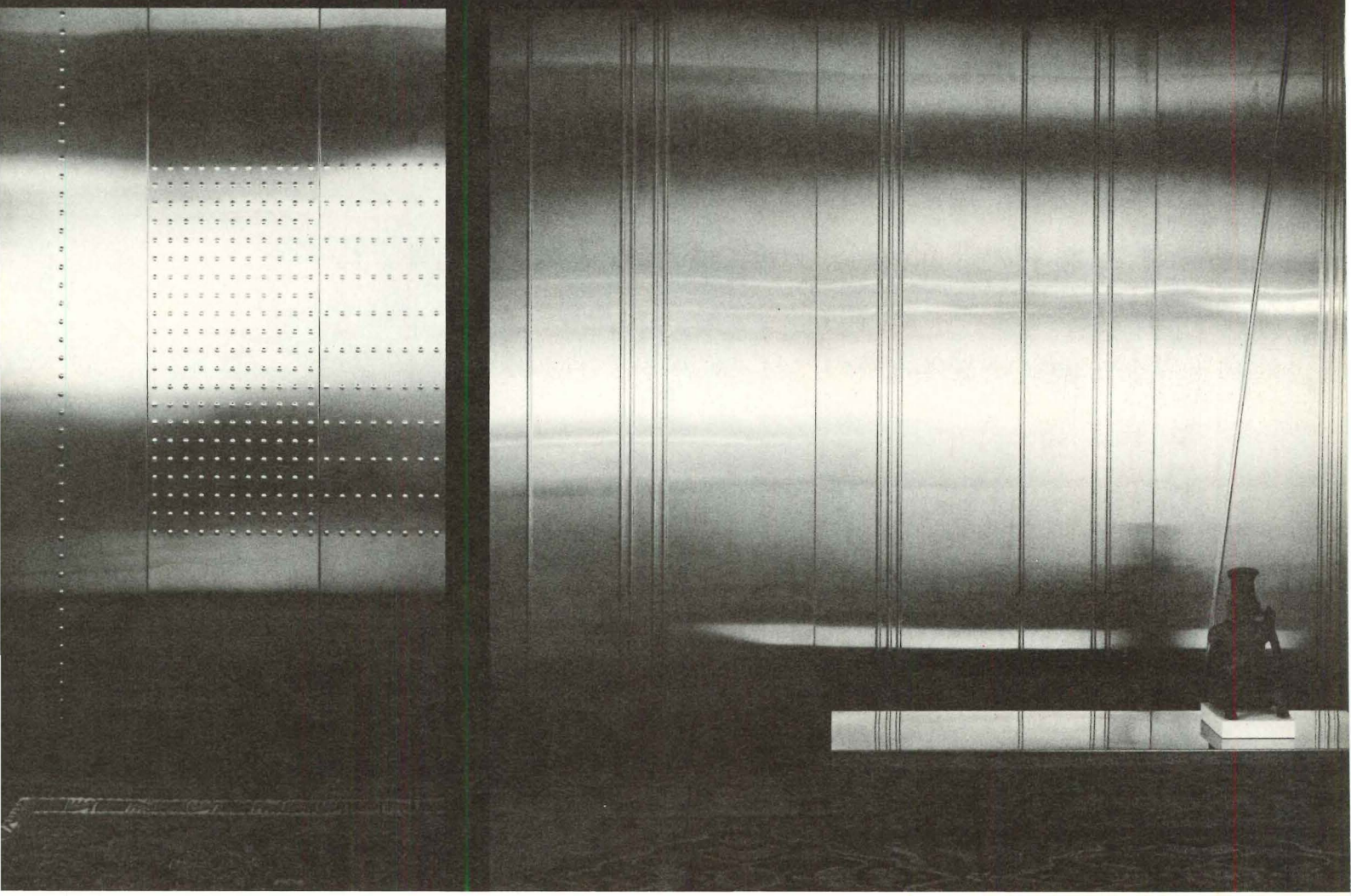
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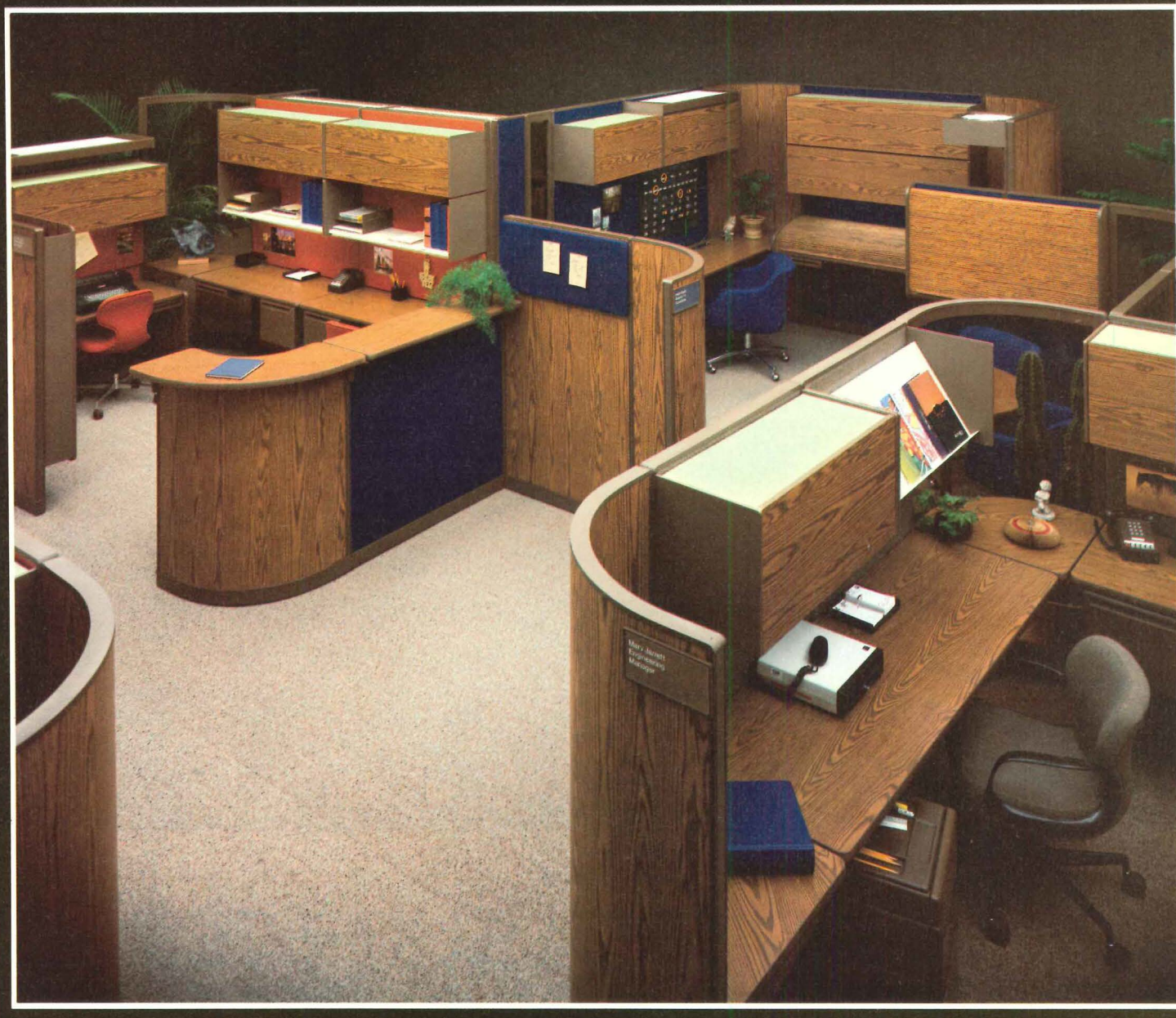
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As part of a long-range plan for commissioning new products from well-known architects and established designers, Knoll has opened two new showrooms: one in New York by Venturi, Rauch & Scott Brown; one in Boston by Gwathmey/Siegel.

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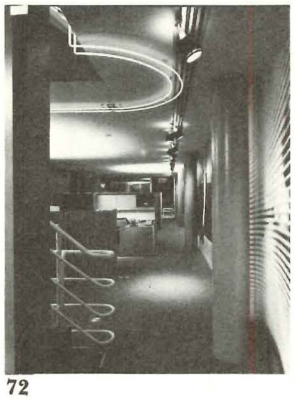
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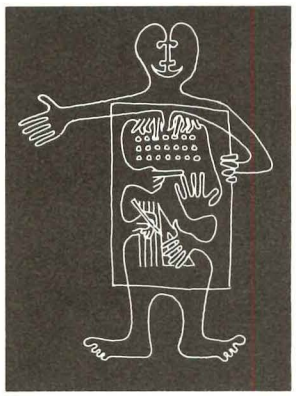
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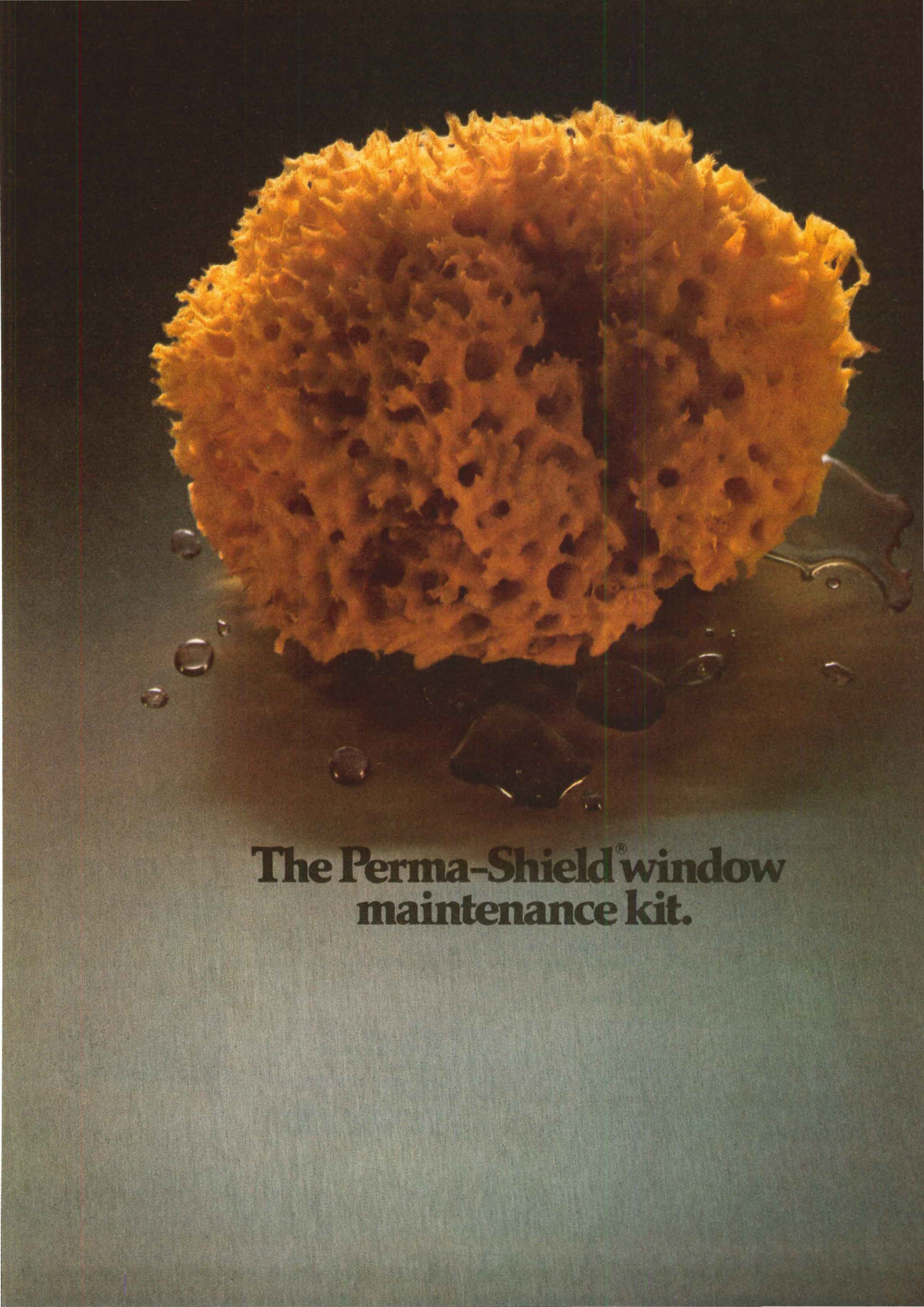

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Cover: *Central Fire Station, Olean, NY, by Werner Seligmann, p. 66. Photo: Jon Reis.*


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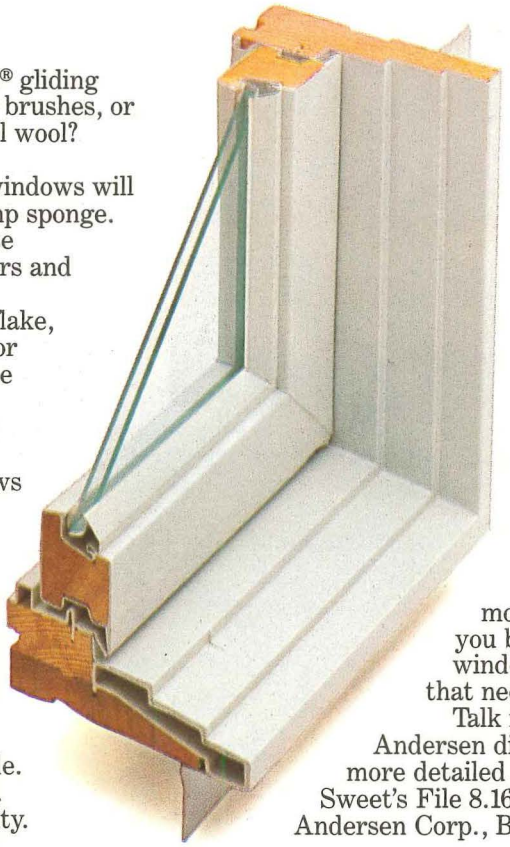
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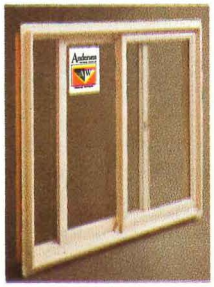
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The delight deficit

lthough we may not be able agree on corrective ac-ons, the fact remains that day's architecture as a hole offers too little of the ird crucial component in e old Vitruvian triad.

Match the items in the left column below with the characterizations to the right:

1. new buildings — a. interesting
2. old buildings — b. boring

We don't have to administer this simplistic test to know how the majority of the American public would answer it—and most of the architectural profession, too, for that matter. Even those who get most indignant over newfangled ornament are likely to agree that most recent architecture is deficient in Vitruvius' quality of "venustas"—conventionally translated as "delight." The overall effect of current construction, combined with continued demolition, is a serious delight deficit in our built environment.

If you doubt that, consider the outcry over the demolition of even the most ordinary of structures from before World War II. A recent instance involves the razing of the Bonwit Teller store on New York's Fifth Avenue. I will disturb some of my colleagues by saying that this 1930s structure was undistinguished; not included among the city's hundreds of designated landmarks, it was outclassed by many nearby structures and had value only as an innocuous background building (P/A, July 1979, p. 25). The demolition process made local headlines when the order was given to smash some exterior reliefs that were being sought by the Metropolitan Museum; though salvaging these period pieces would have been a civilized act, they hardly belonged in a major museum of art. The real concern that drives preservationists to defend such mediocrities is the certainty that new construction on this site will have no comparable grace elements—no small incidents to mediate between viewer and building bulk, no little symbols to become fond of.

What do we do when we travel to another place? Those of us who are in or close to the architecture profession usually examine some of the new buildings because we feel we should; then we try to look at some of the old ones for recreation. Preservation efforts, if well done, give us the double satisfaction of viewing present accomplishment with old-fashioned aesthetic interest.

My most vivid memories of Cincinnati, which many of us just visited for the AIA Convention, are of the Victorian exuberance of the Music Hall, the Plum Street Temple, and the hillside neighborhoods, along with the Art Deco glories of the Union Terminal and the Netherland Hilton. Of the Modern work in town, only the bold form of the embankment at the riverfront park sticks in my mind as a comparable aesthetic experience.

Architectural tourists, it could be argued, have different needs from regular users. Formal idiosyncracies and ornament may entertain the visitor, but comfort and convenience are going to count more in everyday experience. Actually, however, nobody has to give up aesthetic satisfaction for practicality. It is only Modern Architecture, influenced by the technical concept of efficiency, that links abstinence from delight with functional soundness.

More direct, hardheaded reasons for the current delight deficit, however, lie in the economic dictates of our society—in the drive to extract the greatest profit from every square foot of private property—or to meet the codified requirements of public construction at the least cost.

Although Modern Architecture lends itself all too readily to such bottom-line economics or bureaucratic strictures, its higher potentials have been demonstrated repeatedly in great landmarks designed for corporate and government clients. Routine, thoughtless Modern work, by contrast, lacks even those camp flourishes to be found in the poorer efforts of the preceding eclectic period (such as that Bonwit store).

The search for delight has diverted the course of Modern Architecture occasionally in the past—towards Arabian Nights arcades and grillework in the 1950s, towards cozy evocations of Mediterranean hill towns in the 1960s. Mainstream Modern has passed through the alienating phase mislabeled Brutalism and into a more promising Minimal and High Tech phase; shimmering planes, sharp edges, and taut framework can yield very substantial delight, at least for the architecturally informed. Do we then need the historical allusions and applied ornament of Post-Modernism?

In the area of design, as such, that remains today's unresolved dilemma: should we discipline ourselves to generate formal interest by manipulating necessary building elements (p. 66, this issue, for instance) or should we frankly apply adornment (p. 58)? Ultimately, of course, our contribution to the aesthetic quality of the environment depends not so much on which strategy is chosen as on how well it is executed. There is a serious deficit of delight in our built environment, and we should all be striving to close the gap.

John Morris Dixon

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Views

Energy-conscious world-view
In your April issue on pages 162–165, Nory Miller wrote a perceptive article about two recent projects of ours. Although I believe that it is a journalist's first prerogative to be critical and that most architectural magazines have abdicated that role, it seems poor form to critique work not presented or familiar to your readers. Ms. Miller does just that by bringing up and then criticizing a position paper on energy and architecture that I have recently written.

Specifically she attacks the paper for failing to connect technical and formal issues, for attempting "to give the implications of fuel shortages a level of theoretical significance it cannot possibly possess," and then vaguely impugns my community design work and my reasons for writing the paper as a personal search "for an incontrovertible sense of purpose."

This last point is partially true, but it seems a little pompous and gratuitous. It could no doubt be applied to most modern day professionals including herself. As for her second point, my colleagues and I do not claim that "fuel shortages" per se have any theoretical significance for architecture, but that one's attitude toward energy has become a leading symptom of one's world view. We are championing a growing attitude that treats nature and our planet with more humility and respect than did the Modern Movement which paralleled a period of hyper-exploration of natural resources. Expensive energy has forced us to reexamine our links to the natural world and to develop a new paradigm to replace the mechanistic analogy of Modernism and the linguistic analogy of Post-Modernism.

Her first point, about the relationship of technical and formal issues, is of course the Gordian knot that we're all trying to untie. To say that the new architecture will look softer than harder, be built of materials more natural than synthetic, be more hand-crafted than machined, and derive some of its vocabulary from earlier, more climate-responsive styles is not the point. The way the new architecture will look depends on the history, culture, climate, resources, building practices, imagination, and aspirations of a *particular* region or subculture. There will be no cookbook or manifesto by which to make formal decisions—just as there was none for the early Modern Movement. Look at the architectural vocabulary and style of Le Corbusier, Mies, and early Wright: certain ideas were common (e.g., spatial and structural continuity) but the formal styles were very different. There will be an even wider plurality of styles and vocabulary in the newly emerging architecture. Even within a given region, there is still room for different styles because our new energy standards are *still* loose enough to permit us to indulge in favorite architectural styles or conceits. Eventually, however, regional syntaxes will evolve as we are squeezed into tighter and tighter architectural corners by costlier and costlier energy. As the paper painstakingly points out, there is no "natural" aesthetic per se—nature appears in many hats—mechanistic at the atomic scale, abstract at the microscopic scale, organic at the vegetable scale, and picturesque at the landscape scale. What will distinguish the new styles from Modernism and, to some extent, Post-Modernism is a conscientious sensitivity to climate, site, context, and energy.
Doug Kelbaugh, AIA
Kelbaugh & Lee Architects
Princeton, NJ

Awards reactions reviewed
It was depressing to read such a collection of negative reactions in the "Views" section of the April issue. Criticism should either be reportorial or evaluative, and such nonspecific, inarticulate, out-of-hand rejection of Post-Modern Expressionism is cultural Philistinism, especially in a profession that pays such lip service to the art of architecture. It was especially surprising to read Mr. Gwathmey's comments and remember his association with the prestigious New York Five in the early years of this past decade. It was that very group that was then asking for understanding and openmindedness. I can only guess that it has been a long, frustrating dry spell of awards since the Whig Hall citation (Jan. 1973).

To believe that theories of architecture are actually formulated or manipulated by the media implies a cynical or immature attitude that is tragic. The client most assuredly knows both what and who he is getting. To suggest that the Piazza d'Italia (Nov. 1978), Eisenman's inaccessible void (Jan. 1979) or the Best Products competition (Feb. 1980) contain no merit for artistic exploration and are nothing but media exhibitionism is an insult to the talent of some very intelligent and obviously capable men.

We can only hope that in the future, communication through the professional journals will be attempts toward responsible criticism.
Ken Draughon
Knoxville, Tn

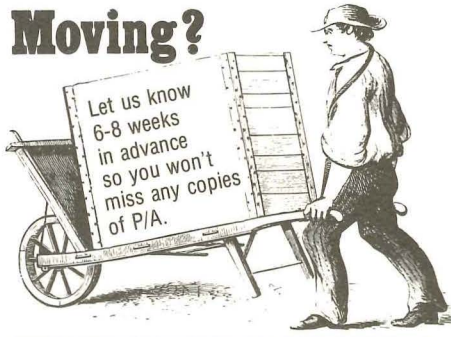
Hold the Ionic columns!
There was a time not so long ago when I eagerly looked forward to the monthly delivery of your magazine. As a student, I saw it as a leading barometer of contemporary architectural thought and as an important forum for the presentation of new designs. I now only hope that it is not too late for you to recapture these qualities. Who was it that decided for the rest of us that Modern Architecture is now officially passé? I have not yet been around long enough to become attached to any one particular philosophy or principle of design. I still manage to love architecture from Gaudí to Le Corbusier to S.O.M. Why am I now being told that I'm out of fashion unless I include an Ionic column or two, or a *least* a meaning-packed vernacular allusion in my designs? Or am I obliged to go out and collect my roll of cyclone fencing and two-by-fours and proceed to dismember some nearby helpless tract house?

God forbid I should hint that you have a responsibility to anyone, but there is a generation of soon-to-be architects out there who look to P/A for occasional guidance and inspiration. Unless you honestly look forward to helping us all along the road to unemployment, or to seeing a future filled with violet and green gypsum-board colonnades with chain-link infill, I would hope (or rather plead, beg, and pray) that you rethink your present evaluative criteria and again present the stimulating and *diverse* collections of designs which made *Progressive Architecture* the leader it is today.
James A. Goring
Student of Architecture
University of California
Berkeley, Ca

Credits due
Consultants for the Shenandoah Solar Recreation Center (P/A, April 1980, p. 158) included Rupert/Jensen & Associates, graphic designs and exhibit; Jack Lynch & Associates, structural engineering.

Extended Use Honor Award for the New York Townhouse (P/A, May 1980, p. 38) should have read: Robert A.M. Stern and John S. Hagmann, architects.

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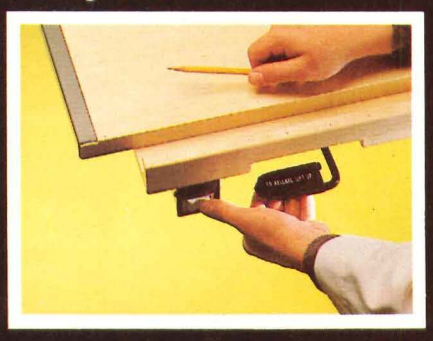
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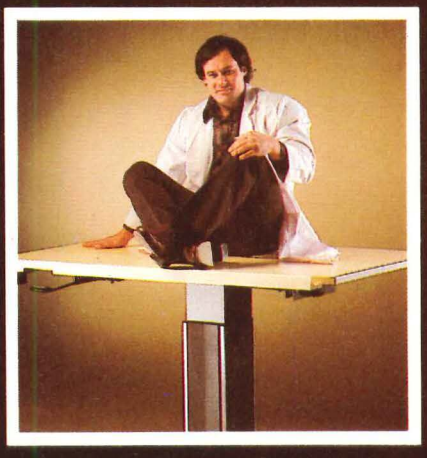
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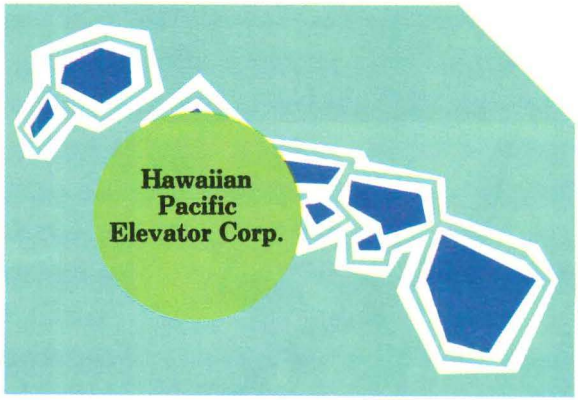
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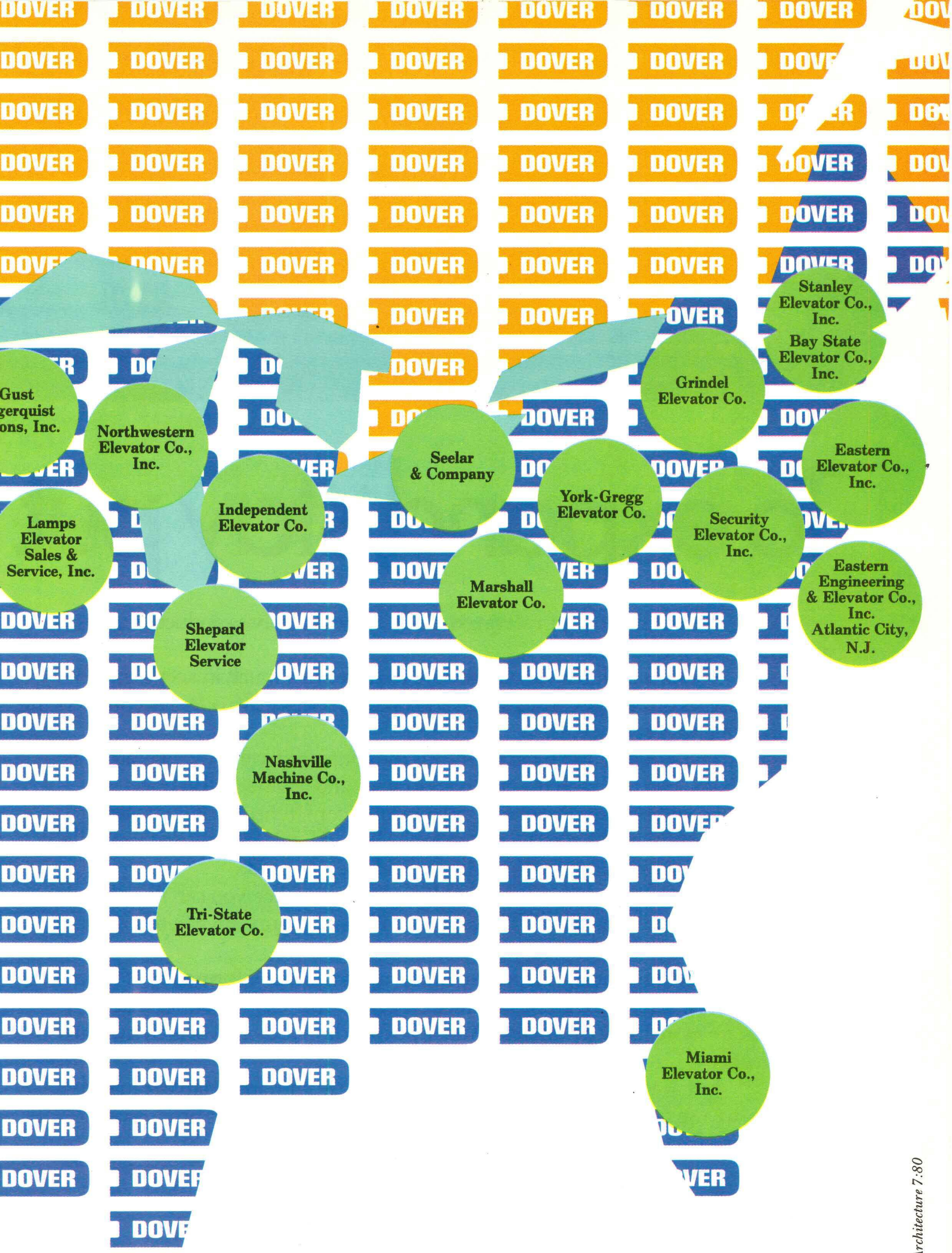
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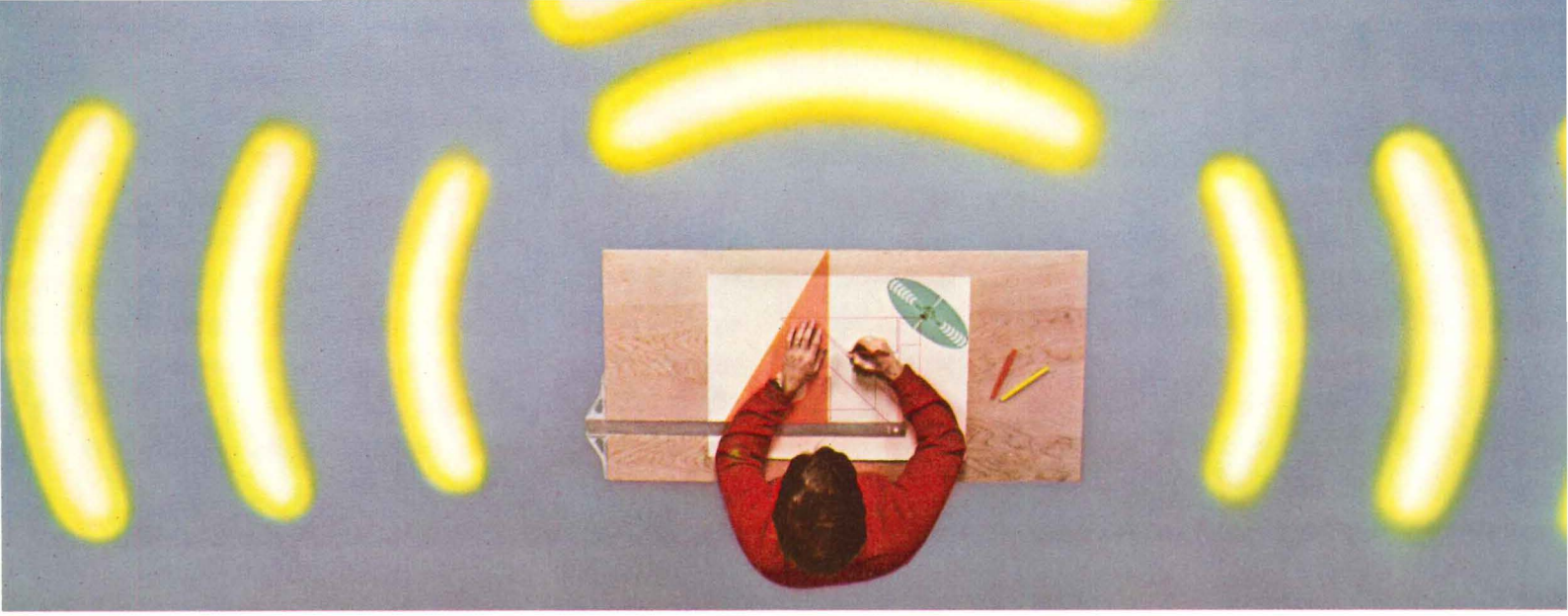
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P/A Awards program

28th annual competition for projects not yet completed

in architecture planning and research

rogressive Architecture announces its 8th annual P/A Awards program. The urpose of this competition is to recognize nd encourage outstanding work in rchitecture and related environmental esign fields in the design phase, before it executed.

ubmissions are invited in the three eneral categories of architectural design, rban design and planning, and applied rchitectural research. Designations of **rst award, award, and citation** may be ade by the invited jury, based on overall xcellence and advances in the art.

The jury for the 28th P/A Awards program: **dmund Bacon**, FAIA, vice president, Iondev International, Ltd., Montreal; **acques Brownson**, director of state uildings, State Buildings Division, State f Colorado, Denver; **Galen Cranz**, ssistant professor of sociology in rchitecture, University of California, erkeley; **Robert J. Frasca**, FAIA, partner, immer Gunsul Frasca Partnership, ortland, OR; **Romaldo Giurgola**, FAIA, artner, Mitchell/Giurgola Architects, lew York and Philadelphia; **George E. Iartman, Jr.**, FAIA, partner, Hartman-Cox rchitects, Washington, DC; **Ralph nowles**, professor of architecture, Iniversity of Southern California, Los ngeles; **Richard G. Stein**, FAIA, The tein Partnership, New York, and adjunct rofessor, School of Architecture, Cooper Inion, New York.

udging will take place in Stamford, CT, uring September 1980. Winners will be otified — confidentially — before Oct. 1. **irst public announcement** of the winners ill be made at a presentation ceremony n New York in January 1981, and winning ntries will be featured in the January 1981 /A. Recognition will be extended to lients, as well as professionals responsible or the work. P/A will arrange for coverage f winning entries in national and local ress.

ligibility

Architects and other environmental esign professionals practicing in the U.S. r Canada may enter one or more ubmissions. Proposals may be for any ocation, but work must have been directed nd substantially executed in U.S. and/or anadian offices.

All entries must have been commissioned y a specific client. Only work initiated on he client's behalf — *not* in fulfillment of cademic requirements — is eligible (but esign teams may include students). P/A eserves the right to contact the client for erification before the final list of winners s determined.

Architectural design entries may include nly buildings or complexes, new or emodeled, scheduled to be under onstruction in 1981 — that is, not ompleted in 1980 and scheduled to ommence before 1982.

Urban design and planning entries may nclude only proposals or reports accepted y the client for implementation before he end of 1981. Feasibility and

(continued on next page)

implementation strategy should be documented.
5 Research entries may include only reports accepted by the client for implementation before the end of 1981. Submissions should deal with programming, design guidelines, or post-evaluation for a *type* of project or problem. Research methodology and ways of disseminating findings should be documented.

Entry form: 28th P/A Awards Program

Please fill out all parts and submit, intact, with each entry (see paragraph 11 of instructions). Use typewriter, please. Copies of this form may be used.

Entrant:
Address:

Entrant phone number:
Project:
Location:
Client:
Client phone number:
Category:

Entrant:
Address:

The undersigned confirms that this entry meets eligibility requirements (paragraphs 1–5) and that stipulations of publication agreement (paragraphs 6–7) will be met.
Entry has been reviewed for compliance with submission requirements (paragraphs 8–15).

Signature _____

Name (typed): _____

Awards Editor
Progressive Architecture
600 Summer Street, Stamford, CT 06904

Your submission has been received and assigned number:

Entrant:
Address:

(Receipt)

Awards Editor
Progressive Architecture
600 Summer Street, Stamford, CT 06904

Entrant:
Address:

(Return label)

Publication agreement
6 If the submission should win, the entrant agrees to make available further information, original drawings, or models, as necessary, for publication in the January 1981 P/A. The entrant will also provide appropriate slides for the presentation ceremony and reproducible black-and-white graphic material for press releases.
7 In the case of architectural design entries only, the entrant agrees to give P/A the first opportunity among architectural magazines for feature publication of any winning project upon completion.

Submission requirements
8 Each submission must be *firmly bound* in a binder no larger than 11″ x 17″. Binders 9″ x 12″ or smaller are preferred.
9 Submissions must include illustrations and drawings necessary to a full understanding of the proposal—all legibly reproduced. P/A assumes no liability for original drawings. No models or slides will be accepted. P/A will take every reasonable precaution to return submissions intact, but can assume no liability for loss or damage.
10 Each submission *must include* a one-page synopsis, in English, on the first page inside the binder, summarizing the intent and principal features of the entry. Synopsis should take up economic, environmental, energy, and user need aspects of the proposal. Synopsis must conclude with a statement on: *why this submission deserves recognition.*
11 Each submission must be accompanied by an entry form, to be found on this page. Reproductions of this form are acceptable. All four sections of the form must be filled out—using typewriter, please. Insert entire form, intact, into *unsealed* envelope attached *inside back cover* of submission.
12 For purposes of jury procedure only, projects are to be assigned *by the entrant* to a category on entry form. Please identify each entry as one of the following: *Education, Housing (Single-family), Housing (Multiple-unit), Commercial, Governmental, Cultural, Recreational, Religious, Health, Planning and/or Urban Design, Applied Research.* Mixed-use entries should be classified by the larger function. If unable to classify, enter *Miscellaneous.*
13 Entry fee of $25 must accompany each submission, inserted into *unsealed* envelope containing entry form (see 11 above). Make check or money order (no cash, please) payable to *Progressive Architecture.*
14 To maintain anonymity, no identification of the entrant may appear on any part of the submission, except on entry form. Identifying titles may be concealed by any simple means. Client and location should be identified. P/A will seal stub of entry form in envelope before judging.
15 Deadline for mailing is September 1. Other methods of delivery are acceptable. In any case, entries must show postmark or other evidence of being en route by deadline. Hand-delivered entries must be received at the address shown here by September 1.

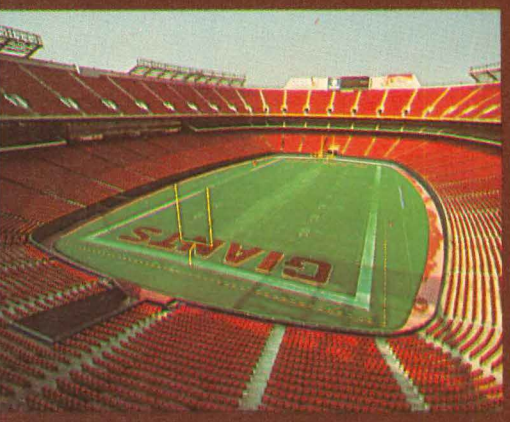
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SuperBlend CR-4 its rugged endurance makes carpets pay off for years.

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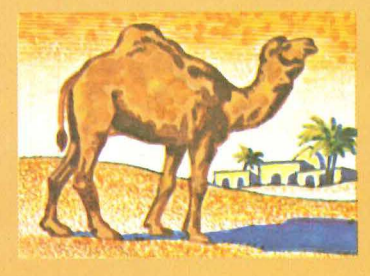
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P/A News report

orning's glassy reasurehouse opens

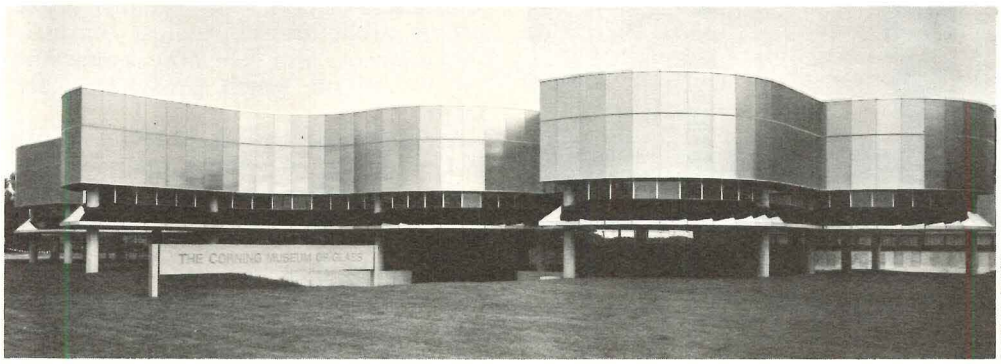
Birkerts' imaginative structure is like irregular flower. . . . " Though it ads like florid promotion, there is a rtain accuracy to this passage from a ress release on the Corning Glass useum in Corning, NY. Swelling out the most visible corner of the ramng Corning Glass Center complex, the ew structure is obviously flowerlike in expansion from a center, in its comex curves, and in its satiny texture.

The new museum designed by Gunar Birkerts & Associates of Birmingam, Mi, impresses the visitor at first ght with its uniqueness. Although visiy attached to the existing complex of ffices, labs, employee facilities, and ore conventional glass industry exhitions, this is clearly a rarefied place. Its ingled calm and agitation, fluidity and recision are qualities shared not only th exotic flowers, but with its own preous contents: glass objects from all of uman history. They are peculiarly appropriate qualities to a structure that ust accommodate both scholarly rearch and vast numbers of tourists.

Though closely linked to the Corning lass Company and supported by it, the useum is a separate, nonprofit entity, nd its collections contain many items onated by others. Established in 1951, e museum has assembled almost 0,000 objects and an even greater umber of books, and annually draws er 800,000 visitors to this remote rner of New York State. But it has ever had an identifiable home—or ace to show its collection, the major rt of which is now on display.

The last installation of the museum, an adjoining portion of the Glass enter, was submerged by floods that ruck Corning in 1972. One of the first quirements for the new structure, erefore, was to raise the collection ove highest predicted water level. ence the museum and library hover ove more mundane loading facilities nd offices. (After-flood reconstruction Corning has also included a fire staon by Birkerts' firm—P/A, Jan. 1974, 66—and a thoughtful renovation of e town's main street—P/A, Nov. 1976, 73.)

For the curly perimeter of the useum, Birkerts has used a newly deloped opaque glass panel, made by cuum-depositing stainless steel on the back of textured glass. The effect is of a subdued shimmer, metallic yet translucent, that is initially puzzling and ultimately appealing. It is tempting to speculate about the future of this material and other potential developments with glass.



Kellogg Studio

The Corning Museum of Glass.

The band of openings that runs continuously around the exterior indicates the architect's interest in reflecting natural light. Located at knee height for visitors inside the museum, the band of vision glass is bounded by two parallel bands of angled mirror. The viewer can look down at an angle on the close-up landscape; looking straight ahead, into the angled mirror, however, produces a periscope-like view—a sinuous, linear one—of the surrounding Corning complex and the town and hills beyond.

Unfortunately, the installation, designed by Paul Seiz, lines up display cases along much of this perimeter, and the visual superimposition of glass objects in glass cases against a mirrored landscape is more confusing than beguiling. How much better if display had been held back from this unique exterior wall. There are other questionable aspects of the interior treatment, particularly the stretches of ordinary gridded hung ceiling that remain visible—in curved slivers—despite blackout paint and theatrical lighting.

The very concept of the structure and the many tricky details involved in carrying it out are all debatable. One thing about which there is no doubt: Birkerts has shown his usual fearless individuality. [JD]

NEOCON 12 reflects year of consolidation

This year's edition of the contract interiors exhibition and conference at Chicago's Merchandise Mart, June 11–13, represented something of a breather for producers and visitors alike. Although there were new exhibit spaces and new introductions, there were no magnets on the order of last year's. Many of the newly introduced products were meant to round out offerings, particularly in the area of office systems. Some were reintroductions of historic pieces, such as an Eileen Gray table at Stendig or the Wagner stool reproduced by Thonet in connection with their 150th Anniversary display.

The strongest direction that could be detected at this year's event was in the area of color. A distinctive palette of hard-to-name colors—brownish pinks and lavenders, bluish grays and greens—seemed to be spreading rapidly through textile lines and across floors and walls. A very similar set of colors had appeared last year—substantially all together—in Michael Graves's Mart showroom for Sunar.

As it so often has, NEOCON began with an address on the future, this one delivered by Edward Cornish, president of the World Future Society. He was able to deliver with great good humor a forecast that ranged from economic dislocation to scattered revolution. The good news is that computers will soon make all of us "walking encyclopedias"—assuming we have the freedom and nourishment to walk. And those of us who survive till about 2020 A.D. may then enjoy a "Golden Age."

News report continued from page 25

AIA meets in Cincinnati



P/A editor John Morris Dixon accepts AIA medal for its awards program from AIA president Charles Schwing.

The mood of this year's AIA Convention in Cincinnati could best be described as earnest. Last year's "Celebration of Architecture" was followed by this year's session of sober reevaluation, based in part upon discussion of the architect's responsibilities to society and in part upon the changed circumstances: last year's cheering economic conditions had been succeeded by forebodings of a more serious recession than the one the government has been predicting.

In the area of official institute business, the most important item by far was the final abandonment of ethics enforcement. All rules of ethics are to be "voluntary," (except where state agencies may rule on abuses of state standards by licensed architects). This ultimate concession to "restraint of trade" pulls the last teeth from the guildlike, mutual protection rules on which AIA was based.

As originally put before the convention, there were two options: a mandatory ethics code or the voluntary one. Former AIA President William ("Chick") Marshall raised the possibility of a combination of the two. Because of recent court actions requiring that any mandatory code be nearly devoid of effective rules in order to be acceptable to the Justice Department, the AIA Legal Decision Impact Task Force recommended that a voluntary ethics code be established, an option that would allow more stringent content. The vote for that course was 1280 to 801.

Other business included an amended amendment to the by-laws concerning associate membership and credits toward registration, and an amendment broadening qualifications for AIA chapter professional affiliate memberships.

"Challenge/Response/Opportunity"

Speeches and seminars at this year's convention addressed themselves to the profession's future performance. A theme address by futurist Leon C. Martel of the Hudson Institute portrayed a future not quite so grim as that predicted by Malthus. Although he did not rule out cataclysm caused by political rather than purely economic factors, Martel seemed to believe that technological solutions were likely to pull us through the next few decades. A second theme address, by editor-educator Irving Kristol of New York, warned of threats within professions themselves: "bureaucratization," an identity crisis pitting public interest against commercial concerns; and rebellion against the "authority" on which professions are based.

Architectural patron J. Irwin Miller of Columbus, In (where many of the convention tours wound up) delivered the third theme address. Miller stressed the importance of examining the *process* of architecture and asserted that the architect has just two true clients: the users of the buildings and the architect's own critical self. The contractual client was relegated to a secondary position, along with the criticism of peers, jurors, or writers. Told that they were, in fact, their own best critics, architects present responded with applause.

As fourth theme speaker, Gerald McCue, FAIA, newly advanced to position of dean at the Harvard Graduate School of Design, saw the design of the future environment as responding to intensifying struggles among interest groups. One weakness of the profession in this situation, he pointed out, is that it attracts people who would prefer to isolate themselves from social dialogue and make "something nice." Not surprisingly, he saw the education of architects—including continuing education—as central to their performance, but said that the present system diverts the attention of professionals toward architectural *documents,* rather than architecture itself, and leads them to make too many intuitive, *ad hoc* decisions where firm factual bases exist.

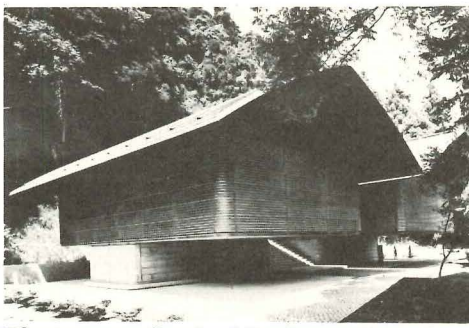
Energy Secretary speaks for BEPS

AIA officers were very pleased to have among the speakers U.S. Dept. of Energy Secretary Charles W. Duncan, Jr. Members of the cabinet have not frequented these events, much less found agreement with AIA positions. In this case, AIA is supporting a Department of Energy proposal, for the Building Energy Performance Standards (BEPS). But it was reassuring, considering the threat to the adoption of these standards by an uncomprehending Congress, to hear the Secretary reiterate suppor of his own department's strategy. Dur can expressed the feeling of AIA mem bers who understand the issues by say ing that "energy conservation is th cheapest environmentally safe way o getting more energy," and that energ saving in buildings should be ac complished "by design, not by decree, to meet, by any satisfactory means, predetermined standard.

Seminars

Again this year, convention planners in telligently organized one long semina around this year's Honor Award win ners (P/A, May 1980, p. 34). Expla nations by four winning architects— Paul Kennon of CRS, Joan Goody George Notter, and Frank Gehry—wer remarkably articulate and convincing and comments by jurors present wer revealing, though the process of selec tion was not really probed.

Another seminar, on neighborhood drew on local spokesmen for enlighten ing commentaries on Cincinnati exemplary community rehabilitatio areas. Carl Westmoreland, representin the Mt. Auburn Good Housing Founda tion, eloquently discussed the pride o minority residents who participate i the rejuvenation of their own histori environment. Developer Neil Bort spoke simply and directly about th more conventional process of inner cit renewal that has made the once shabb Mt. Adams area a charming haven fo upwardly mobile business and profes sional people. While Westmoreland pre sented an alternative to "social di placement" of minorities, he showed n hostility toward efforts such as those o Borts. Preservation of the fabric, by an means, he believes, is preferable to los ing it: "The ultimate displacement is weedy lot."



The treasury for the Minobusan Kuonji Temple, Reynolds Award winner.

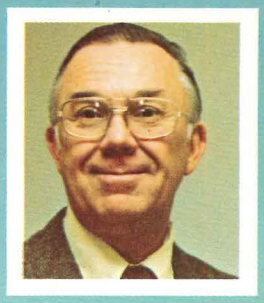
Uchii wins Reynolds Award

The R.S. Reynolds Memorial Award fo distinguished architecture using alum num went to Shozo Uchii of Tokyo fo the Treasury of the Minobusan Kuon Temple. The design uses triple-layere cast aluminum insulating panel finished with a pine-smoke patina, t preserve the temple's treasures of cu tural artifacts.

The annual Reynolds Aluminu prize for architectural students went t J. Rodger Critz of the University of Ar kansas, for the design of a solar wa panel.

[*News report continued on page 29*]

"*REZ*® Wood Stains gave us the best color selection and cost effectiveness"



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MacArthur Terrace, Chicopee, Massachusetts—A HUD 236 Project for Chicopee Housing Associates; Architect—Reinhardt Associates, Inc.; General Contractor—Dimeo Construction; Painting Contractor—John D. Ahern Company.

Because various grades of lumber were used in the MacArthur Terrace Project, the exterior finish had to meet two very important criteria. First, a variety of colors were needed to make the overall apartment complex aesthetically pleasing. At the same time, the finish had to be economical in terms of both initial application and long-term maintenance.

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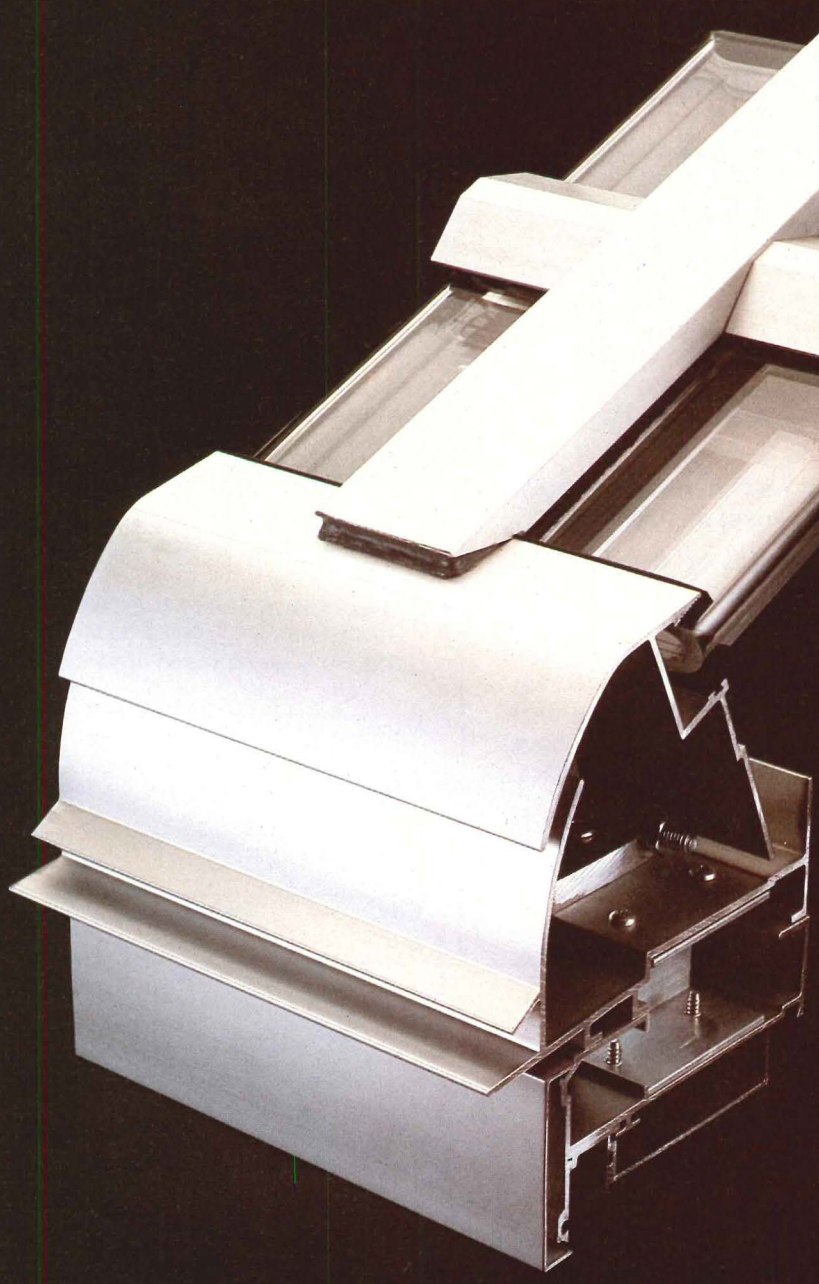
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ews report continued from page 26

unar, the better

)ne almost gets the impression that obby Cadwallader, chairman of Sunar, as worked hard to find odd spaces for lichael Graves to design as showrooms ?/A, Sept. 1979, p. 148). Houston is the itest addition to the series, and its [-shaped space wrapping around the ervice core of the Pace Tower has connued this pattern of challenges. It also rovided the first real opportunity for Graves to develop spatial variation in



A dramatic passage (above) becomes a loggia (above, right) around major spaces. Capitals (right) are also sconces for lighting of different intensities.

ull three dimensions. While the visual anguage is familiar, that of the Houston unar showroom has been toned down rom the "gold tipped cigarettes" of Chicago to a more unified vocabulary.

Houston is the first of the series to offer potential largeness of space, with a nain room over 90 ft in length. Michael Graves has come, in his recent architecure, to measure space through articuated volumes, and he felt that while unar's main line of furniture is curently office systems, the line might also become in part residential. The architectural problem focused on accommodating a variety of scales. Graves's olution combined the development of learly defined volumes, composed in a eries of boundary conditions, with hree-dimensional surface treatments allowing for multiple readings and recombinations of the elements.

The primary volumes are cubic, defined by groupings of columns and vocative of *atriums*. These in turn became implicitly sources of light, and hey are explicitly designed as such. Their square plans imply a centralized onfiguration, which allows their reading as discrete volumes clearly marked by a major grouping of 30-in.-diameter olumns at the corners of each square. But the porosity of the minor order of

[*News report continued on page 32*]





Photos: Charles McGrath

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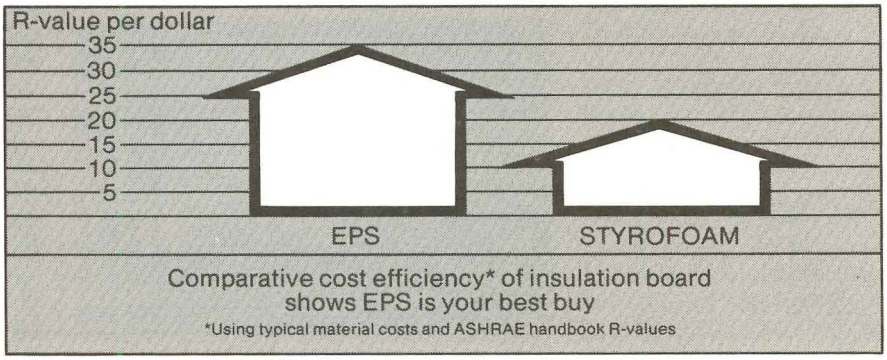
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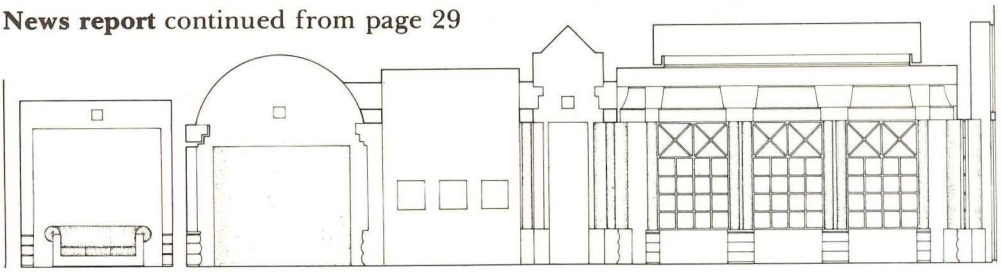
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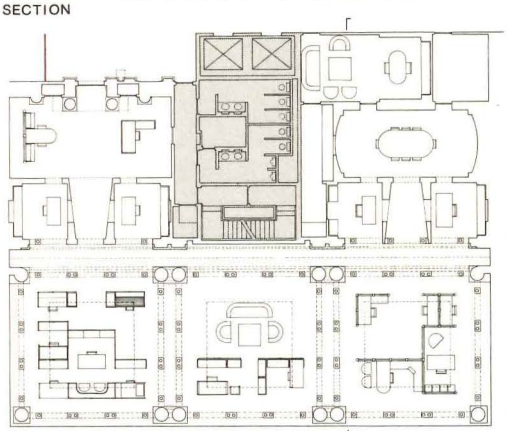
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News report continued from page 29



SECTION



PLAN N ↓ 10

paired columns allows for the free combination of the three rooms.

The Houston Sunar Showroom, more than its predecessors, must be read in both plan and section, with its resultant, the interior elevation (all of which were drawn for construction). It is in three dimensions and in the development of surface that the order of Graves's design becomes clear, for gestures in plan are best understood in their three-dimensional implications.

The logic of the plan proceeds from fundamental allocations and the given context: an entry directly off the lobby, the main Sunar collections housed in the large space, and the two tails of the U-shape used for minor functions. From this, the sequence is hierarchical, terminating in the regional manager's private office (which places his private entry directly off the main lobby on the opposite side). The passage becomes that of a series of boundaries, clearly marked by the formation of axes of movement and understood through the development of positive, not residual, spaces. The most dramatic of these is a 3½-ft-wide, 17½-ft-high, 91-ft-long gallery, connecting the edges of the U-shape and developed as a loggia along the suite of principal rooms; this axis is dramatically emphasized by linear lighting troughs and a gabled ceiling, a form that relates to its place in plan.

The textile display is contained in a room with a conference room atmosphere, under a graceful vault. Connections between principal rooms are marked by two special rooms, flip-flopped in plan in order to maintain the identical qualitative perceptions by the user in the sequence of movement; these also include small, false-perspective passages which reflect Graves's use of elements for both associative and formal properties. Yet, the elements are also deliberately ambiguous; they are both figurative and abstract, conventional and inventive. Column "capitals" are also light sconces, for instance.

Color is one of the most obvious aspects of the Sunar showrooms, and its use here combines purely formal properties with subtle meanings. There are metaphors, such as the green floor and pale blue ceilings, as well as formal qualities, such as a darker hue stabilizing the base, evoking a wainscot and implying a physical substance that has columns both sitting on a plinth and emerging from a fragmented wall.

Does it work as a showroom? The scale of the various rooms exhibits fully the variable ceiling heights, allowing a comfortable fit between purpose and space. The large main space, because of its multiple visual readings, reasonably accommodates individual pieces, groupings, and the Sunar systems such as PAS and Race. But ultimately, the Houston showroom addresses a larger set of issues, those concerned with a design discourse and the development of architecture as a three-dimensional discipline. [Peter C. Papademetriou]



David Morton

Highways weave Amman buildings together.

Report from Amman

From May 3rd through the 8th in Amman, Jordan, the fifth seminar of the Aga Khan Award for Architecture was held. Although the award program was originally established by the Aga Khan in 1977 as a foundation to encourage excellence in all fields of Islamic arts and sciences, the first award to be presented will be for that in architecture, at the end of this year. Projects completed and in use between Jan. 1950 and Jan. 1977 are eligible for the award, which will be given every three years. Up to five $100,000 awards can be given in the areas of housing, public buildings and spaces, community form and planning, and restoration and reuse. Besides these, an award can also be given to a work of original research in any of those areas.

Before the awards are given, however, six international seminars will have taken place, with ideas and information exchanged among professionals, scholars, critics, and others directly or indirectly involved in the building process. The purpose of these meetings is to establish the criteria for the awards. In addition to the Amman seminar, where 80 participants concentrated on the subject of public buildings and spaces, previous seminars have dealt with housing (in Jakarta), restoration and reuse (in Istambul), and community planning and form (in Geneva, the location of the Aga Khan's offices).



Modern buildings mushroom around old.

The master jury that will eventually select the projects to be honored in December includes Titus Burckhardt, Swiss philosopher; Sherban Cantacuzino, architect and secretary of the Royal Institute of British Architects; Giancarlo de Carlo, Italian architect; Mahbub ul Haq, director of Policy Planning and Program Development for the World Bank; Muzharul Islam, architect and president of the Institute of Architects, Bangladesh; Aptullah Kuran, professor of humanities and chairman of the department at Bogazici University, Istanbul; Mona A. Serageldin, Egyptian architect practicing in the U.S.; H.E. Soedjatmoki, Indonesian sociologist and former Ambassador to the U.S.; and Kenzo Tange, Japanese architect and Professor Emeritus at Tokyo University.

The Amman discussions

A clearly strained King Hussein of Jordan opened the seminar with a welcoming word on a morning that had seen renewed hostilities on the West Bank. Afterwards, the Aga Khan presented his opening remarks, which were to set the tone for the following five days. He noted that in the name of progress and development, cities in the Muslim world are being destroyed and eroded. "We are in danger of losing that vital continuity of our past," he said, "without which we will not have a future." It is because of this problem that he set up the award "to encourage an understanding and awareness of the strength and diversity of the Muslim cultural traditions which, when combined with an enlightened use of modern technology for contemporary society, will result in

[*News report continued on page 36*]

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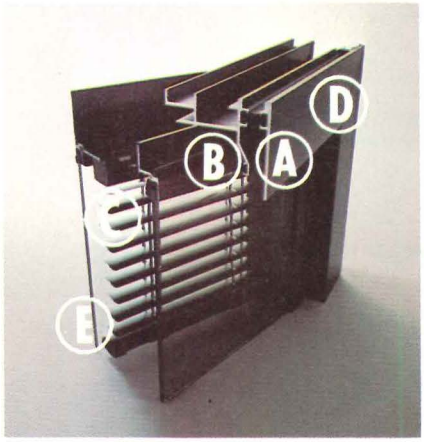
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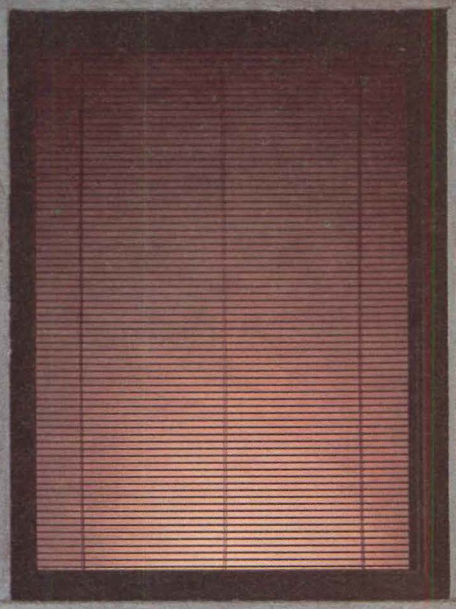
Slider. Try to wash this one from the side. Better yet, try to keep it on track. mous for easy air and water infiltration. ey work best when accompanied by a re- irman.

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News report continued from page 32

buildings more appropriate for the Islamic world of tomorrow." As the leader of the sect of 15 million Ismailis who live throughout the Muslim world, the Aga Khan is particularly well suited for the role of focusing attention on such matters within the entire Islamic community of 30 countries that stretch from Morocco to Indonesia.

The first two days of the seminar were conducted with considerable brilliance and wit by King Hussein's robust brother Prince Hassan. Because the conference dealt with public buildings and spaces and included as part of its program an exhibition of some universities planned for various parts of Islam, much of the early discussion concentrated on the design for such facilities.

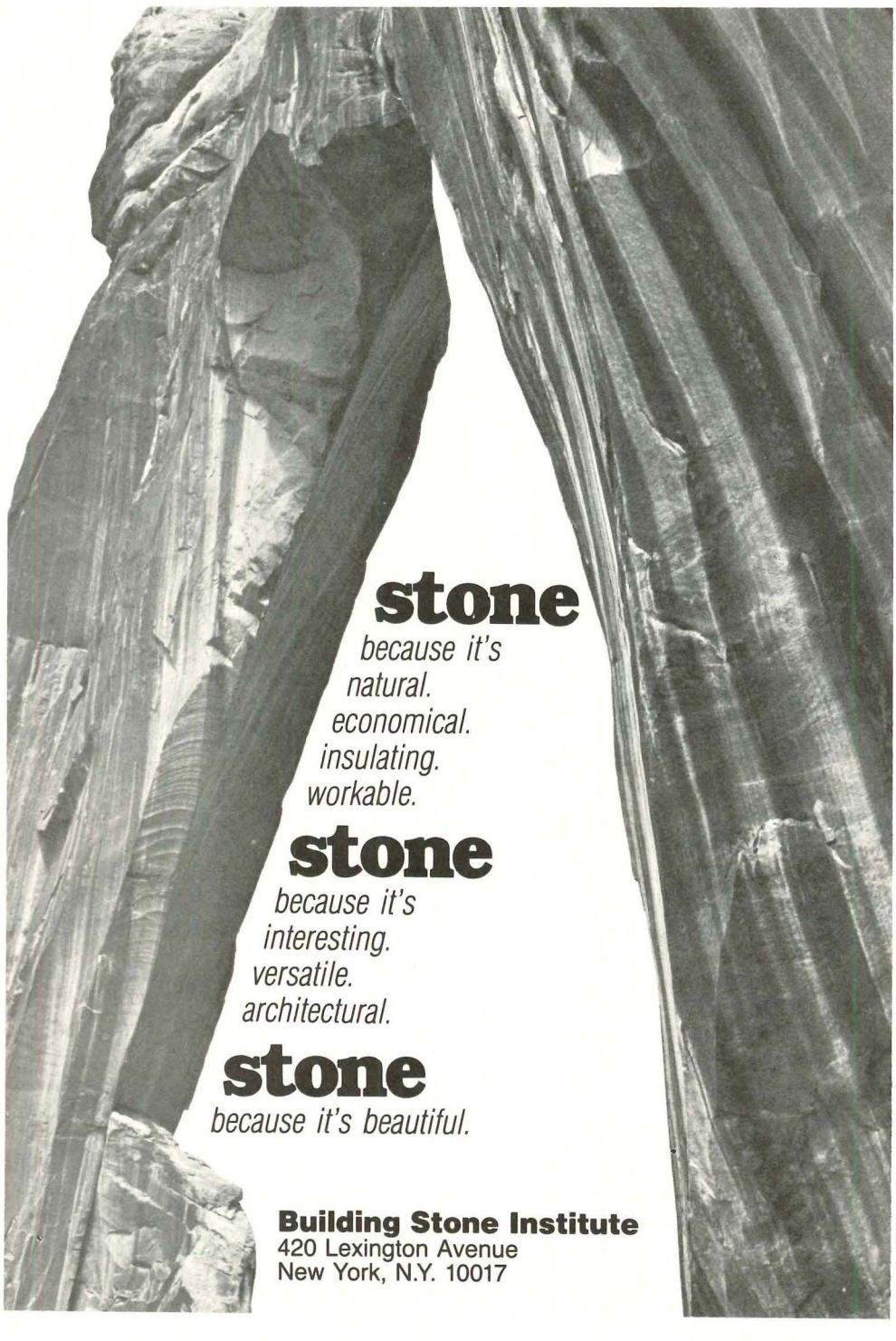
Nadar Ardalan noted that all of the universities shown were of the campus master-plan type and were too removed and detached from places of activity. He wondered why they had to be that way, and why they could not be incorporated into existing cities to become a part of them and to share resources with their communities. Walter Netsch responded that instant campuses are the result of growing populations that need and want instant education. "You can't," he said, "put 20,000 people into an existing fabric without great interruption to something that took a long time to grow." He noted further that some of the U.S. universities were not in cities originally, but that cities grew around them as the population began to grow.

Arthur Erickson took the conversation to another level with his remark that the root problem was deeper than architecture or planning. "The problem in the Middle East," he said, "is not that they have accepted design of the Wes
but that they have accepted the institu
tions, and this is what they should que
tion; the master-planned U.S. campuse
of departmentalized components gre
up at a particular time in response t
particular circumstances which are nc
applicable to the Middle East becaus
they completely deny the concept of tc
tality of life that is so important to Eas
ern culture."

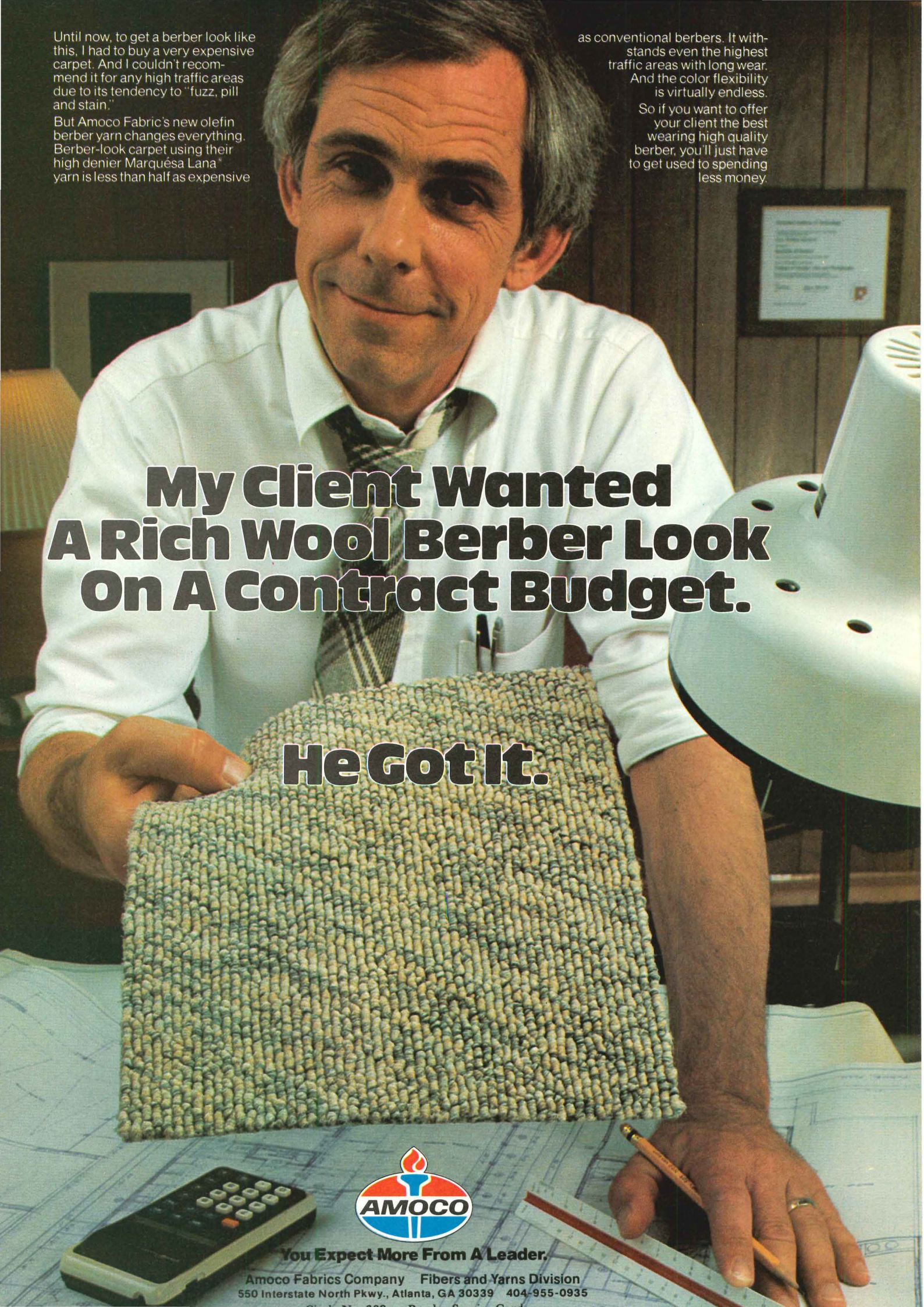
With the discussion headed in such
direction, it became clear that the majc
area of concern would center aroun
the question of what, particularly, Is
lamic architecture is. This began t
come into sharp focus when Samir Ab
dulac, a Syrian with the Ministry of En
vironment in Paris, reminded the partic
ipants that "we cannot blame Wester
architects for not designing in an Is
lamic manner when we have not define
what it is and consequently cannot eve
do it ourselves." Certain guideline
began to emerge, however, that seeme
to be typical of, if not totally exclusive tc
Islamic architecture. It is first, and i
contrast to that typical of the West, a
architecture that views buildings as con
tainers of space rather than as objects i
space. The Islamic building, it was als
agreed, concentrates more on the nc
tion of privacy, especially through th
use of interior courtyard spaces, o
simplicity, modesty, and respect fo
human scale. The communities, espe
cially the older ones, are characterize
by a rich, tightly-woven fabric where lif
and all of its activities have been int
mately bound together into a tapestr
that makes little obvious distinction be
tween home, marketplace, school, an
place of business.

It is the nature of these communitie
and the type of life they sustain that th
Muslim world, whose nations are nov
seen as "emerging" or "developing" an
whose populations are exploding, is i
fear of losing. Yet as it enters the mod
ern world, it will suffer the losses of lif
quality as surely as the industrialize
and developed nations already have. A
one needed to do in Amman was to loo
out the hotel room window to see thi
already happening. The town has mush
roomed in recent years, especiall
since losing the West Bank. It is not ver
encouraging to see what the city of ove
one million inhabitants is turning into.

In Amman today, only wide, ne
motorways connect otherwise unrelate
tall new buildings. Housing shortage
exist while building activity extends a
far as the eye can see. Amman is no
unique in this pattern, however, nor is i
unique in repeating many of the mis
takes of the West. But does this mea
that everything from the West should b
rejected, including its science an
technology? Not necessarily, and at leas
not insofar as the Aga Khan awards ar
concerned. In explaining the award
program, it is spelled out clearly tha
"Consideration will be given particularl
to those projects which use local initia
tives and resources creatively, whic
meet both the functional and cultura
[*News report continued on page 42*]

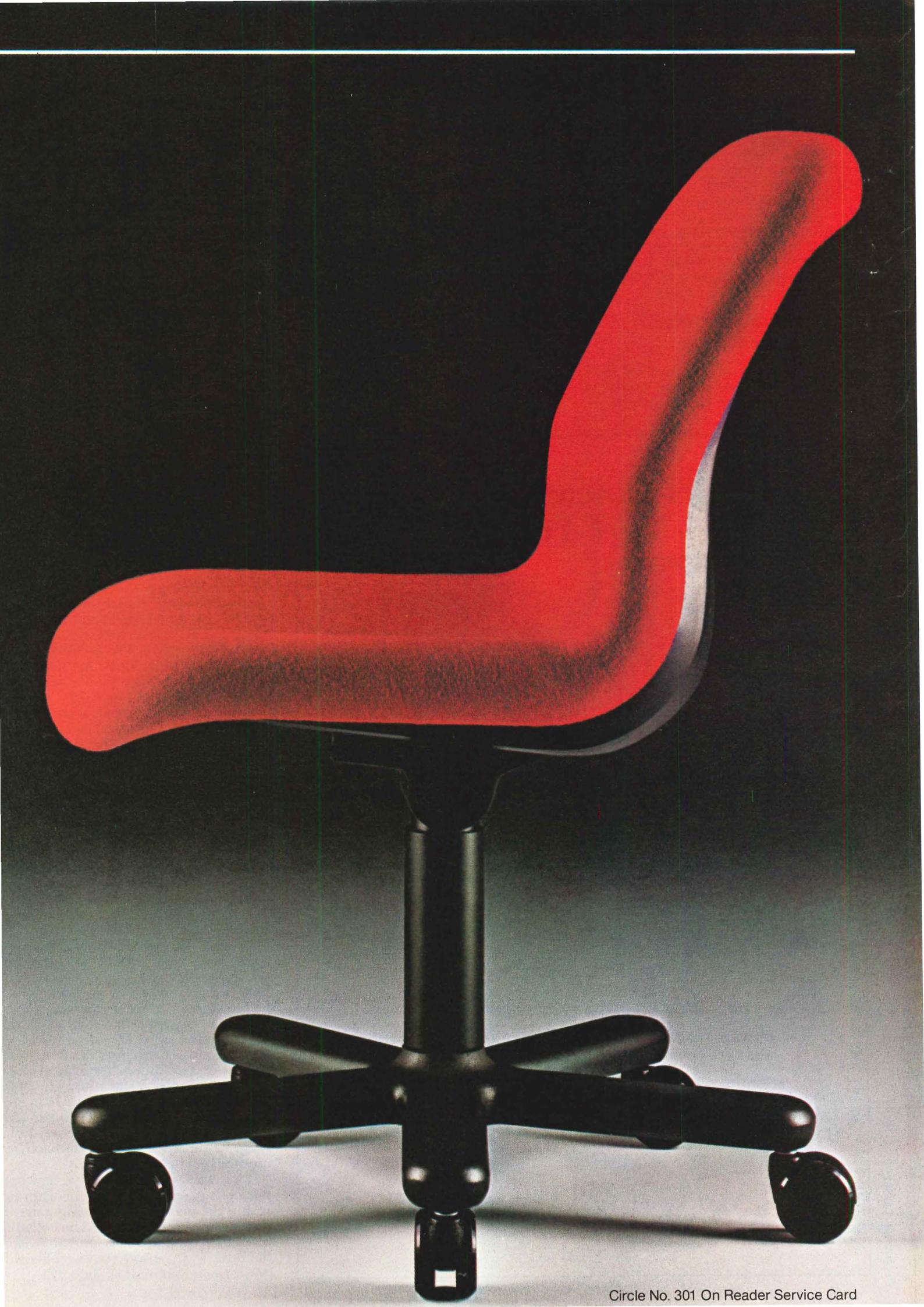


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News report continued from page 36

needs of their users and may be emulated elsewhere in the Muslim world." It is also noted, however, that "Projects will be chosen for their potential as catalysts in the evolution of a new cultural sensibility, one which combines a heightened awareness of the continuing vitality of Muslim cultures with a renewed determination to respond to the challenge of modern societies and technology." What the judges for the Aga Khan Award will determine such projects to be will not be known until December. [DM]

City Segments show Walker Art Center

The gritty real and the cerebral ideal both found their way into the exhibit of drawings devoted to urban visions, on display at Minneapolis' Walker Art Center April 19–June 15. Mildred Friedman was the curator of the show, which has been synopsized nicely in the 113–114 issue of *Design Quarterly*.

Like many of the current Utopian visions, some of the proposals are too diffuse and fragmentary, others too glitteringly seductive to present an urban design premise convincingly. Some of the projects retreat from the real world rather than attempt to transform it. Other visions are going to be built, for better or for worse, and the drawings become a way of conferring an aura of art on these schemes. Nevertheless, the range of arrestingly handsome drawings sufficiently catches the observer's attention, raising questions about the gap between the mundane world outside and the quite different milieus within the Walker.

Participating in the show were a diverse range of architects includin Diana Agrest and Garth Rockcast (who each wrote introductions for th *D.Q.* catalog), along with Mario Gande sonas, Cesar Pelli, Romaldo Giurgol Hardy Holzman Pfeiffer, Hodn Stageberg, Helmut Jahn, and Emili Ambasz.

A symposium commemorating th opening of the show investigated prol lems of designing city segments an problems of criticizing them. Partic pants included architects represented i the exhibition, Tom Beeby, Robert A.M Stern, George Baird, Daniel Solomo and Steven Peterson. Also participatin were critics Paul Gapp of the *Chicag Tribune;* Suzanne Stephens, P/A; Joh Pastier, freelance; Kenneth Frampto Columbia University; and Charl Zucker of the NEA.

The symposium, like the show, ha some interesting and not so interestin presentations, some clear and not s clear ideas, but it, too, offered a worth while type of exploration. [SS]

Metropolitan Museum of Art opens two wings

In March, New York's Metropolita Museum opened its André Meyer Ga leries for 19th-Century European pain ings and sculpture. In June, th Museum opened the first phase of i American wing, containing its fine co lection of American paintings, scul ture, and decorative arts. Both additio were designed by the architects Kevi Roche/John Dinkeloo & Associates, an are part of a master plan conceived b them and approved in 1971.

Both wings are based, with modific tions, upon an approach which the a chitects devised for the Sackler win which opened in 1978 (P/A, May 197 p. 98). With this approach, space is co tained within great shedlike glass an steel enclosures, and then fittings, ind pendent of this outer shell, adapt th space to the specific programmat needs.

In the André Meyer gallery, a certai richness was desired, in contrast to th glassy enclosure, so screen walls we covered with a silklike fabric and we trimmed with flat oak moldings. Th glass roof flows freely above the scree walls, and incorporates a translucen ceiling which ingeniously allows natur light, supplemented by artificial light, t be introduced. Here, the concept of en closure versus interior would work wel if the space were not so choked: th screen walls are too high to allow a clea feeling of separation between glass en closure and solid installation; and at th south end, an oak balustrade is so hig and so wide that, though it affords a fin view of the trees and skyline beyond, suggests yet frustrates a view of activiti on the level below.

The American wing has a very cor plicated program, as it incorporate within the glass shed, painting gallerie furniture halls, a courtyard, installatio of architectural artifacts, and an existin building with period rooms. This win [*News report continued on page 47*]

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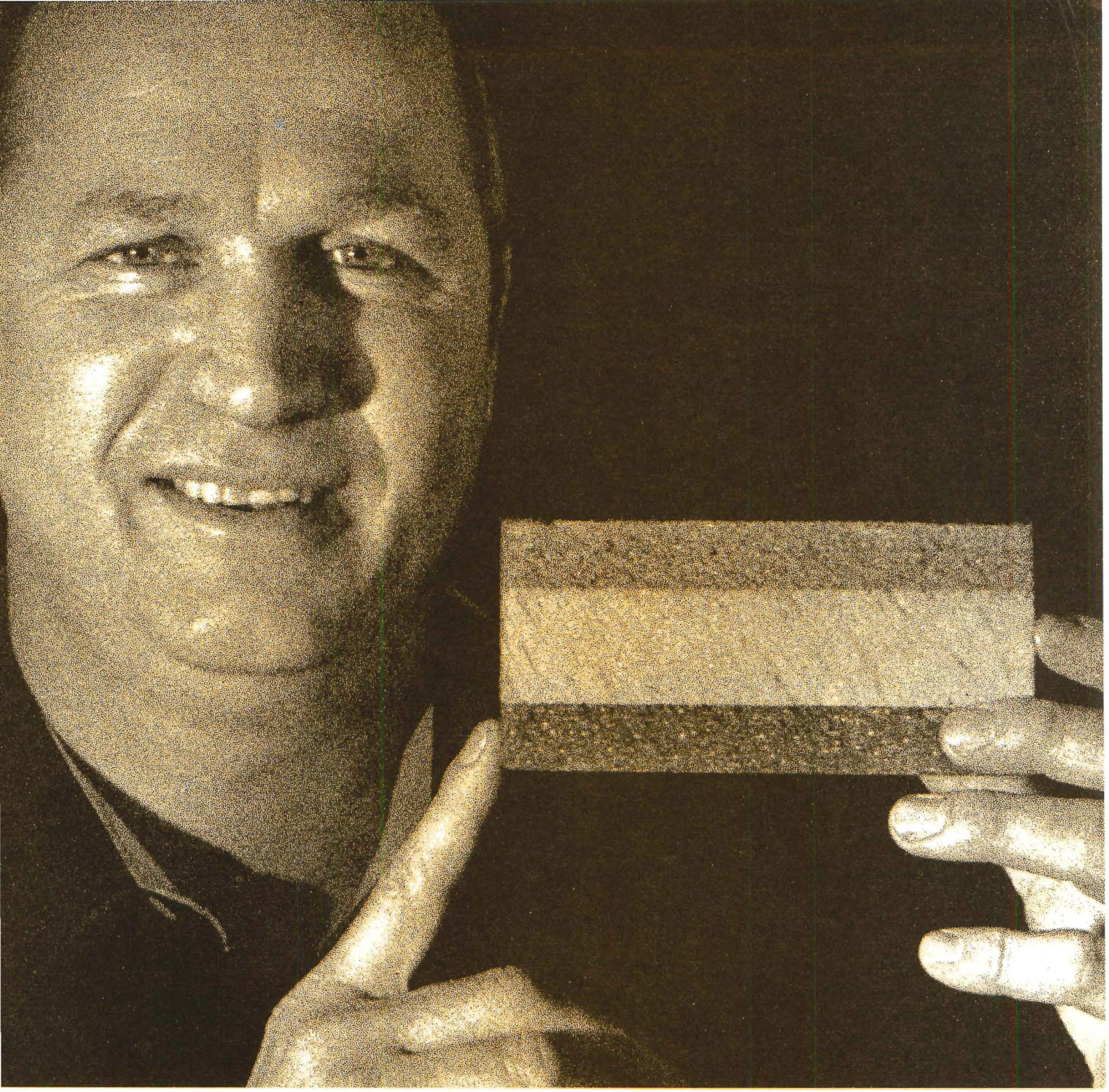


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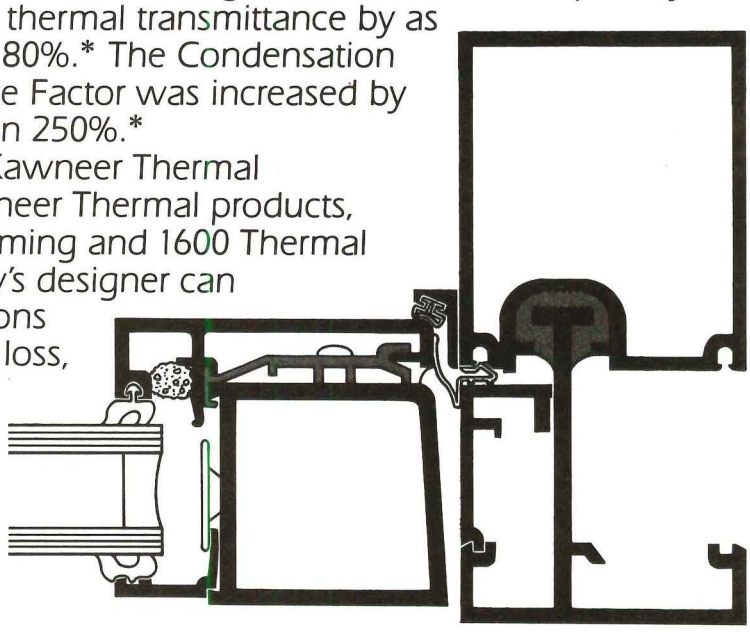
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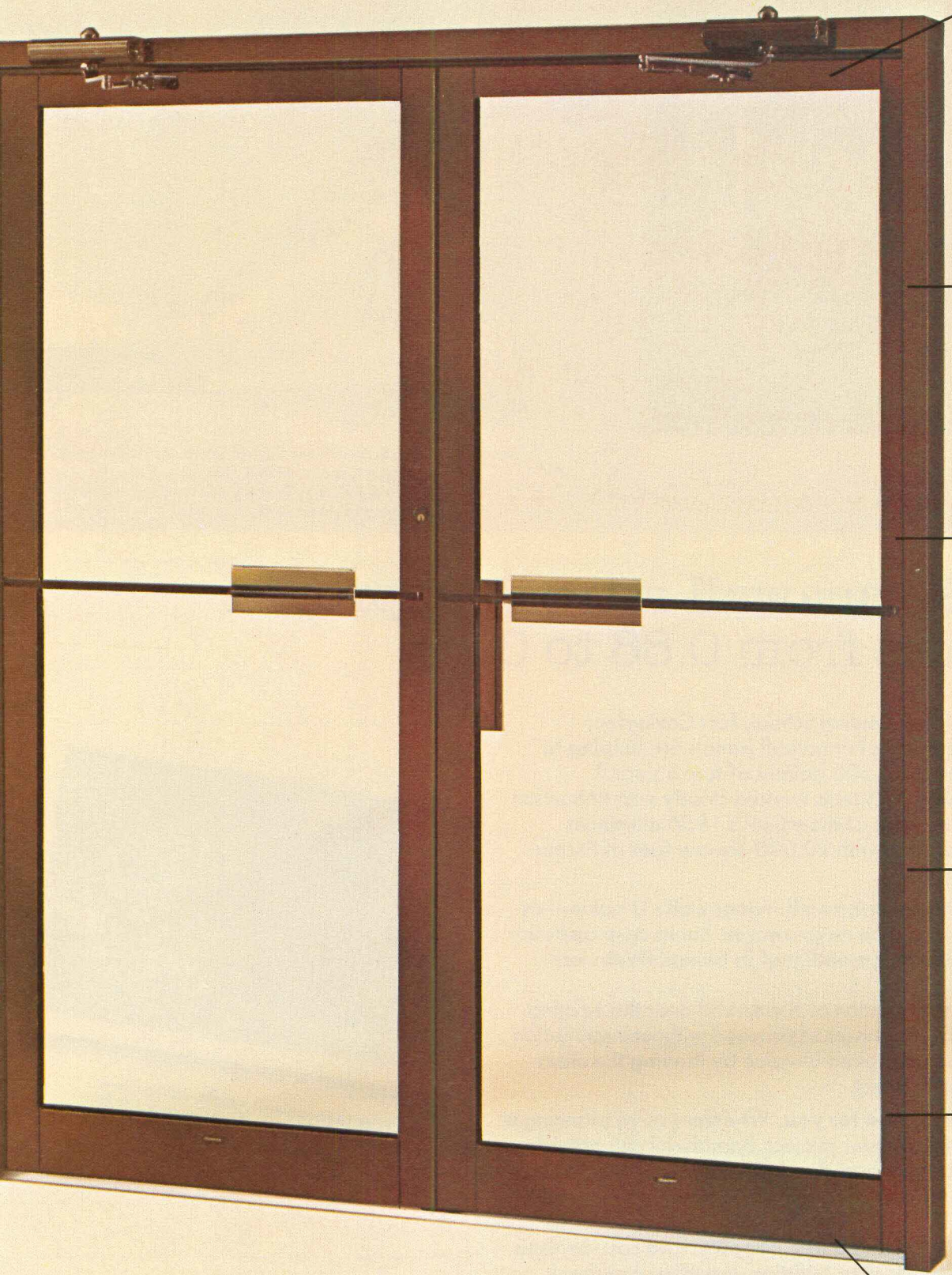
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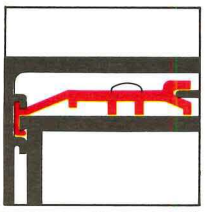
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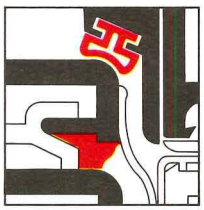


*Test results available on request.

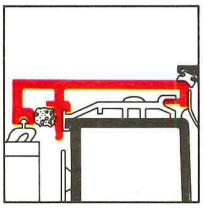




Continuous, Rigid PVC Thermal Separators. Secured by screws for positive attachment. Separators are interlocked with cladding for additional holding strength.



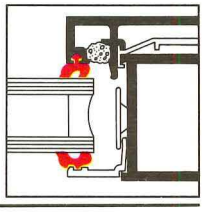
PVC Cushion for quiet door closing. Silicone pointing prevents cold air contact with interior cladding.



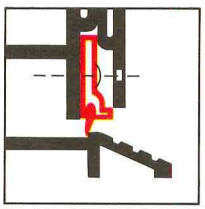
Heavy Gauge Aluminum Cladding. Mounted on interior face of door and mechanically interlocked to thermal separator along both edges. Cladding is also dimensionally stable—no thermal bowing.



Sealair Weathering. Flexible polymeric stripping at jambs and header significantly reduces air infiltration.



Fully-resilient Glass Setting. Door and frame accept 1", 3/4" or 5/8" insulating glass for greater thermal efficiency. Glazing stops provide 1/2" grippage with 1/4" edge clearance.

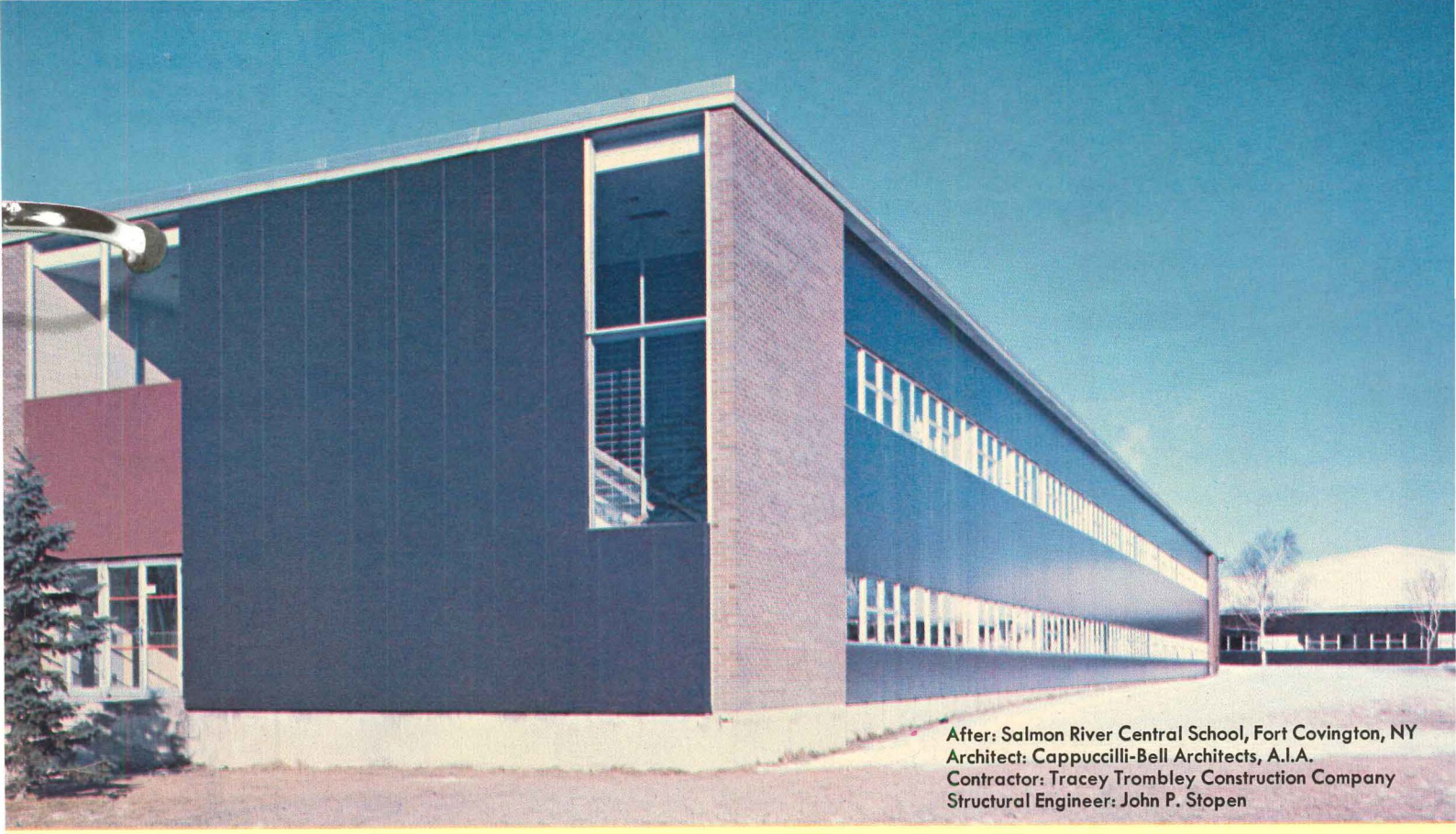


Sealair Adjustable Bottom Weatherstrip. Concealed flexible blade gasket provides continuous contact with threshold.

For more information, ask for our new brochure, Kawneer Thermal Entrances. Write:
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Kawneer
The designer's element

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After: Salmon River Central School, Fort Covington, NY
Architect: Cappuccilli-Bell Architects, A.I.A.
Contractor: Tracey Trombley Construction Company
Structural Engineer: John P. Stopen

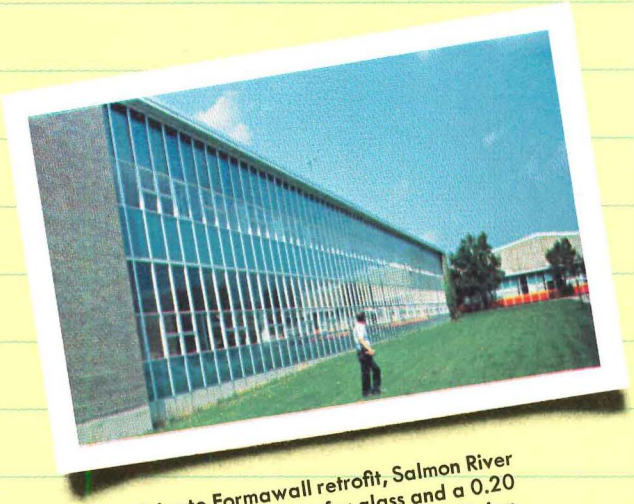
This Formawall retrofit improved U-values from 0.88 to 0.10.

At the Salmon River Central School, Fort Covington, New York, Robertson's Formawall panels are helping to save an estimated 17,500 gallons of fuel a year.*

Cappuccilli-Bell Architects worked closely with Robertson to cover large sections of the school's 1956 aluminum and glass curtainwall with 20,000 square feet of Formawall insulated panels.

Why they chose Formawall. Formawall's U-value—as low as 0.065—was one major reason. But its crisp appearance and the proven durability of its Durasil finish were also important.

In addition, the erection of Formawall over the existing curtainwall allowed classes to proceed without interruption and provided an improved U-value by leaving the older curtainwall system intact.



Before: Prior to Formawall retrofit, Salmon River School had a 1.10 U-value for glass and a 0.20 U-value for wall panels. (Photo by Dennis Spina, Cappuccilli-Bell.)

Let Formawall work for you. Whether you're planning a retrofit or an entirely new project, Formawall can provide the insulation, beauty and durability you need. It's available with Durasil, Versacor, Vitralume porcelain enamel or other finishes.

For information about a free computerized cost-analysis of retrofit options for your building, including pay-back estimates based on fuel savings, write: H. H. Robertson Company, Department P-7, 400 Holiday Drive, Pittsburgh, PA 15220.

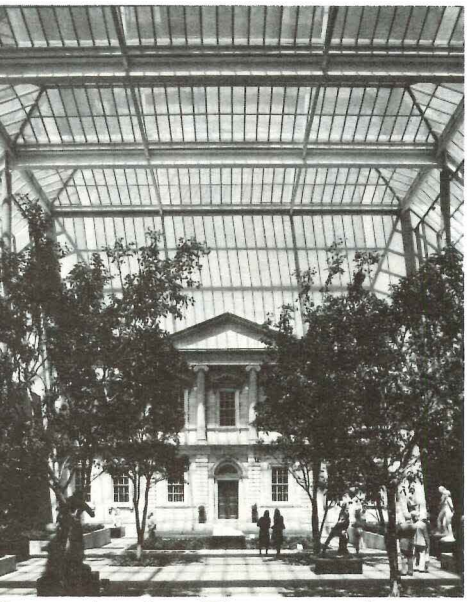
*Based on typical (as of March 25, 1980) fuel costs of $0.87/gallon, annual estimated savings today are $15,225.00. (Fuel savings estimates and U-value measurements by Cappuccilli-Bell.)

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Robertson

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lews report continued from page 42



he new American Wing courtyard.

rovides moments of great pleasure: the ourtyard is glorious with pale limestone alls, gleaming brass handrails, and a reat glass roof and wall which draw in ark views and the shifting skies above. On the other hand, the detailing in this ourt is insensitive, as is the relationship f the architecture to the works of art nemselves. Great masses of limestone re used indiscriminately: one great wall f limestone is moved heavily forward so that a stained-glass Tiffany landscape can be backlit; another such wall is nearly flush with the reerected façade of the 1822 Assay Building, providing no contrast; and a third great limestone wall crushes the stairway from Louis Sullivan's Stock Exchange Building into a space too narrow for it.

In the painting galleries of this wing, a ceiling system incorporating natural and artificial lighting is used, similar to that in the Meyer Wing, and the effect is very fine.

Unfortunately, the attempt to contain a complicated program within a simple shell results in some ill-proportioned spaces: the halls surrounding the original American wing are long and narrow, doing a disservice to the furniture displayed there, and to the period rooms which feel crushed between them.

Roche/Dinkeloo were afforded an awesome opportunity in the commission to design these important new wings. Their response, while glorious in certain points, was, in general, quite ordinary. [Susan Doubilet]

Hexter Awards Program: 'Interiors of the Year'

The S.M. Hexter Company, manufacturers of fabrics, wallcoverings, floorcoverings, furniture, and decorative screens, announced the winners of its 22nd Annual Awards Program for the "Interiors of the Year" at a luncheon held in April in the Regency Hotel, New York. Two First Awards of $25,000 each were given, one in the residential category and one for nonresidential work; honorable mentions were also presented. The first prize for a residential interior went to Scott Kurland and James Silvester, of the Kurland Design Group, New York, for their design of a living/dining area of a New York apartment. Juan Montoya of New York received honorable mention in the residential category. For nonresidential interiors, Christopher Carr and Daniel



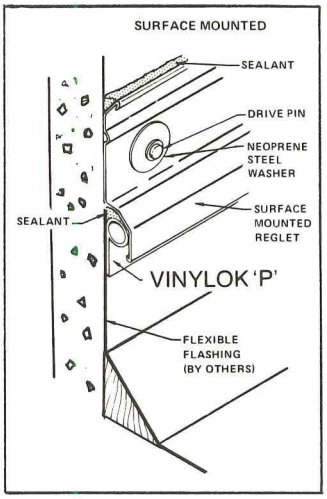
Le Sportsac luggage shop.

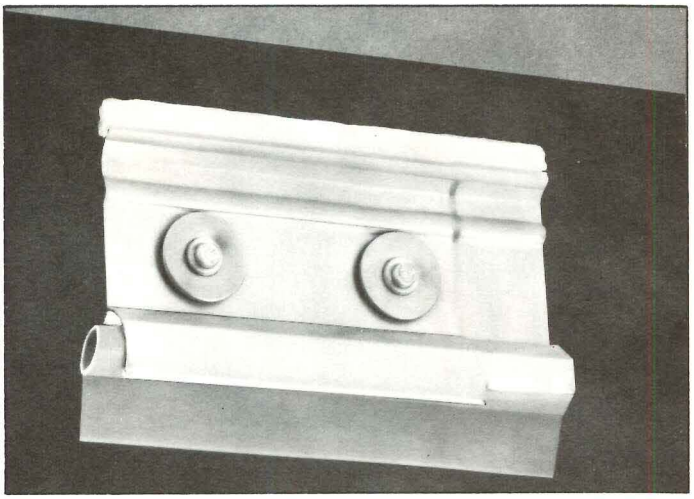
[*News report continued on page 50*]

For spaces too cramped for standard flashings...

NEW 'P' Vinylok Flashing Retainer

This ingenious new flashing retainer from Fry solves a familiar roofing problem: where the space between the top of the parapet and cant strip is too small for ordinary flashings. Just specify 'P' Vinylok Flashing Retainer. Flexible flashing (supplied by others) is installed to contact the reglet; sealant is applied as shown. 'P' Vinylok is then easily pressed under the reglet with the "tail" flat against the flexible flashing. Result: problem solved.





For use with these Fry Flashings: Type ST (Stucco); MA (Masonry); and SM (Surface Mounted); not for use with CO (Concrete). For detailed information or name of your nearest supplier, contact us today.

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It's ironic. When you're about to specify a floor, all you get to see are beautiful new samples. Which gives you absolutely no idea of what the floor will look like when it really counts. In the future.

Unfortunately, that's when your clients' happiness is at stake. Along with your reputation.

That's why with Gafstar® Contracfloor™ sheet vinyl we give you a look at its future, by showing you how well it stood up in the past.

ANY FLOOR CAN SHINE WHEN IT'S NEW. GAFSTAR CONTRACFLOOR SHINES WHEN IT'S OLD.



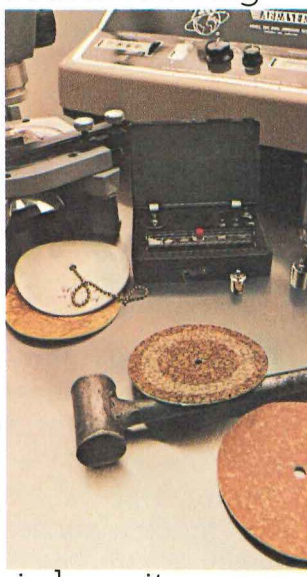
In this busy corridor of Brackenridge Hospital in Austin, Texas for example, this Contracfloor took a lot of abuse.

Twenty-four hours a day, for three years, patients' beds rolled over it. Doctors, nurses and hospital staff hurried back and forth. And visitors paced up and down.

But you can hardly see a trace of wear. It's still a shining example of a beautiful floor.

TESTS PROVE OUR FLOOR STAYS BEAUTIFUL LONGER.

The key to our beautiful-looking floor is its tough no-wax surface.



But the leading inlaid doesn't even have one. So there's nothing to protect its pattern from the abuse it has to take everyday.

And even though the leading inlaid's wearlayer is thicker, the only gauge that means anything is how it wears.

The Frick-Taber® Abraser Test proved it.

In 6,000 cycles abrasives significantly wore into the pattern of the leading inlaid. While they didn't make a dent in ours.

If that doesn't make an impression on you, imagine those results on the floor.

After years of wear, your clients wi still have the same beautiful-looking Contracfloor they started with.

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the leading inlaid, so it's not only
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Which all leaves no doubt,
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tomorrow, you'll want to
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News report continued from page 47

Fried, of Carr & Associates, Los Angeles, won first prize for their design of Le Sportsac luggage shop in L.A., with honorable mention going to James Fitzgerald, AIA, of Space Design International, Cincinnati, and Rodney Perry, ASID, and Dale Plummer, ASID, of Raleigh, NC.

Winners selected in student competition

Six winners were chosen in May from among the record-breaking number of student submissions, over 2200, in this year's Design & Energy competition sponsored by the Association of Collegiate Schools of Architecture. Reflecting, perhaps, the "grim professionalism" that some observers have sensed recently on college campuses, the student efforts showed little sign of the polemics that have marked the work of their predecessors, according to the jurors. The latter included Fred Dubin, PE, Richard Stein, FAIA, Paul Goldberger, *New York Times* critic, and Robert Fredericks of New York International House.

The competition was supported by the Department of Energy and the Brick Institute of America, as well as the ACSA, all of whom provided the students with relevant technical literature, and it stressed passive design and creative use of brick masonry. Entries were solicited in two categories: one, solutions for a mixed-use international student residence; the other, solutions for any medium-scale architectural project other than a single-family residence.

In Category I, Robert Nalls of the University of Pennsylvania won first award for the design of an International House for Philadelphia. The scheme made the most of opportunities for natural ventilation and passive solar gain on a constrained site, and according to juror Richard Stein, "responded to basic questions of energy performance without distorting fundamental architectural relationships." Second place in this category went to James Rasche of the University of Minnesota, and third place to Bill Cheeseman of Oklahoma State University.

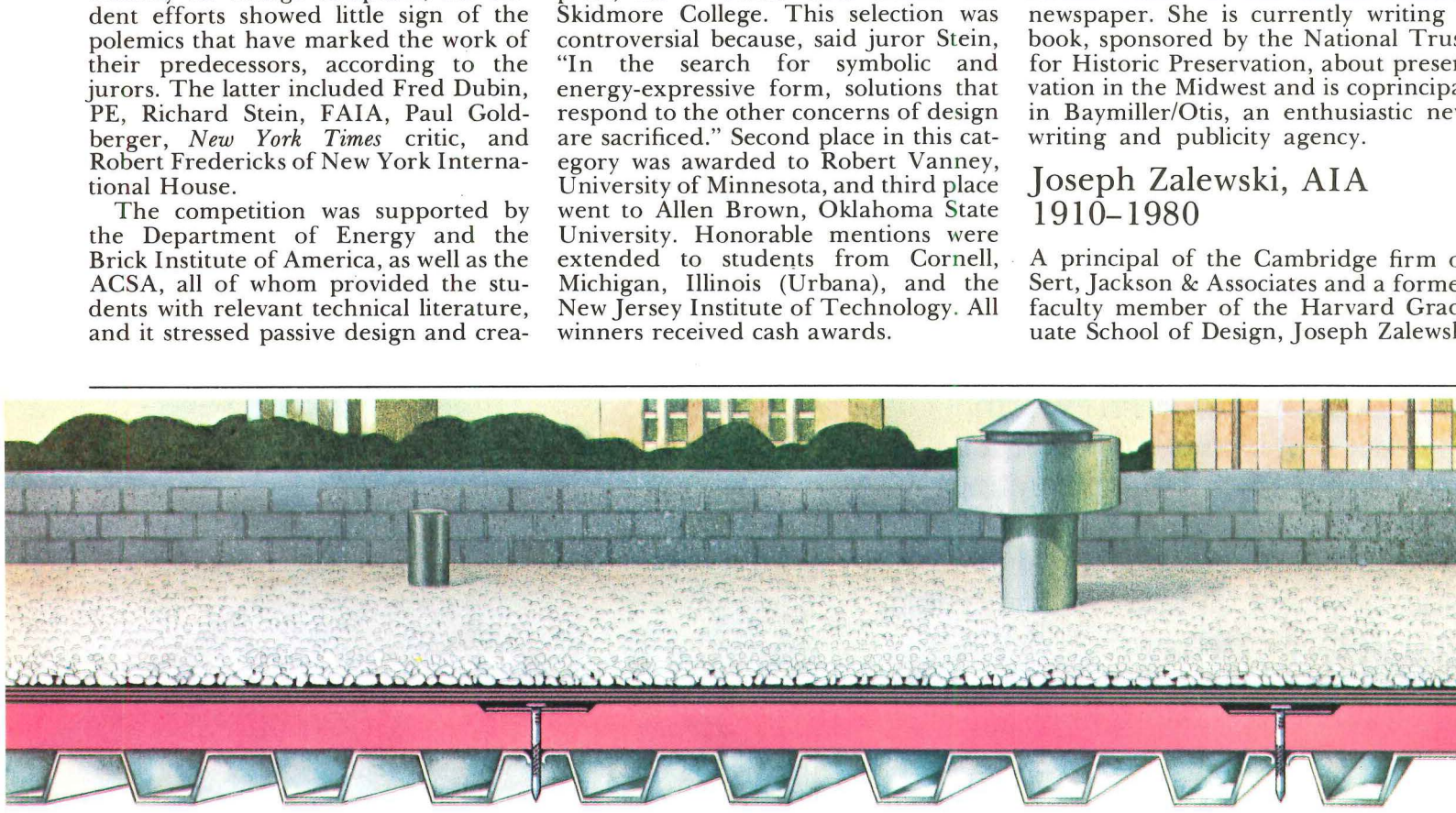
In Category II, Scott Barton of Rensselaer Polytechnic Institute took first prize, for a Visual Arts Center for Skidmore College. This selection was controversial because, said juror Stein, "In the search for symbolic and energy-expressive form, solutions that respond to the other concerns of design are sacrificed." Second place in this category was awarded to Robert Vanney, University of Minnesota, and third place went to Allen Brown, Oklahoma State University. Honorable mentions were extended to students from Cornell, Michigan, Illinois (Urbana), and the New Jersey Institute of Technology. All winners received cash awards.

Baymiller appointed correspondent

Progressive Architecture is pleased to an nounce the appointment of Joann Baymiller as correspondent from S Paul, Mn. Ms. Baymiller has a degree i Sociology/Anthropology from Washing ton University, and has done graduat work in architecture at the University o Minnesota. An architecture and danc critic, she has contributed to local an national publications. She has also bee active for a number of years in the fiel of preservation. In 1975, she organize a national "Back to the City" conferenc for Old Towns Restorations. For Min nesota Landmarks, she coordinated four-day citywide arts festival. In 197 and 1977 she served on the Board o Directors of Old Town Restorations, preservation planning program for S Paul's Historic Hill District, and she is former editor of the Grand Gazett newspaper. She is currently writing book, sponsored by the National Trus for Historic Preservation, about prese vation in the Midwest and is coprincipa in Baymiller/Otis, an enthusiastic ne writing and publicity agency.

Joseph Zalewski, AIA 1910–1980

A principal of the Cambridge firm o Sert, Jackson & Associates and a forme faculty member of the Harvard Grad uate School of Design, Joseph Zalewsk



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ied in March at his home in Boston. Mr. Zalewski was born in Poland and studied rchitecture at the Polytechnic Institute f Warsaw. During the war, he escaped o France, where he worked in the offices f Le Corbusier and Paul Nelson.

In 1951, Mr. Zalewski came to the Jnited States, joining the New York firm f Town Planning Associates, with José Luis Sert and Paul Lester Wiener. He vas appointed to the faculty of Harvard n 1953, and in 1958 helped found the rchitecture and planning office of Sert, ackson & Associates in Cambridge. As a rincipal, he participated in buildings or Harvard, Boston University, the Jniversity of Guelph (Ontario), and Roosevelt Island. He also worked, with ert, on plans for the Fondation Maeght n France, the Miró Museum in Barelona, and the U.S. Embassy complex in Baghdad. He is survived by two sons.

Marvin E. Goody, FAIA 1929–1980

Marvin Goody, of the Boston architectural firm Goody, Clancy & Associates, died suddenly on May 16, 1980. His partners included his wife Joan E. Goody, John Clancy, and Robert Pelletier. Goody was born in New York and received his master's degree in architecture from Massachusetts Institute of Technology and in city planning from Yale University. He was a fellow in the American Institute of Architects, chairman of the Boston Art Commission, former director of the Boston Society of Architects, vice president of the Boston Architectural Center, and chairman of the Massachusetts Architectural Registration Board. In June, the AIA presented his firm with an award for Heaton Court, a housing project for the elderly in Stockbridge, Ma, for which Joan Goody was partner in charge.

Personalities

Charles M. Correa, architect in Bombay, India, was one of five honorary degree recipients at University of Michigan's spring commencement. Correa, who earned his bachelor degree in architecture at Michigan in 1953 and did graduate work at MIT, opened his professional office in Bombay in 1958. He has designed the Gandhi Memorial Museum, as well as buildings for industry, education, commerce, and government, and is best known for his contributions in housing for the poor in tropical countries.

Henry N. Cobb, a founding partner in the New York firm of I.M. Pei & Partners, has been appointed chairman of the Architecture Department at Harvard University's Graduate School of Design, effective July 1, 1980.

Cobb received his Master's degree in Architecture from Harvard in 1949, and began his professional career with the Boston firm of Hugh Stubbins. As a partner in the Pei firm, he has played a major role in city planning projects, including the urban renewal of Boston's Government Center in 1961, and Los Angeles' Bunker Hill in 1963. He received a National AIA Honor Award for Boston's John Hancock Tower in 1977.

Calendar

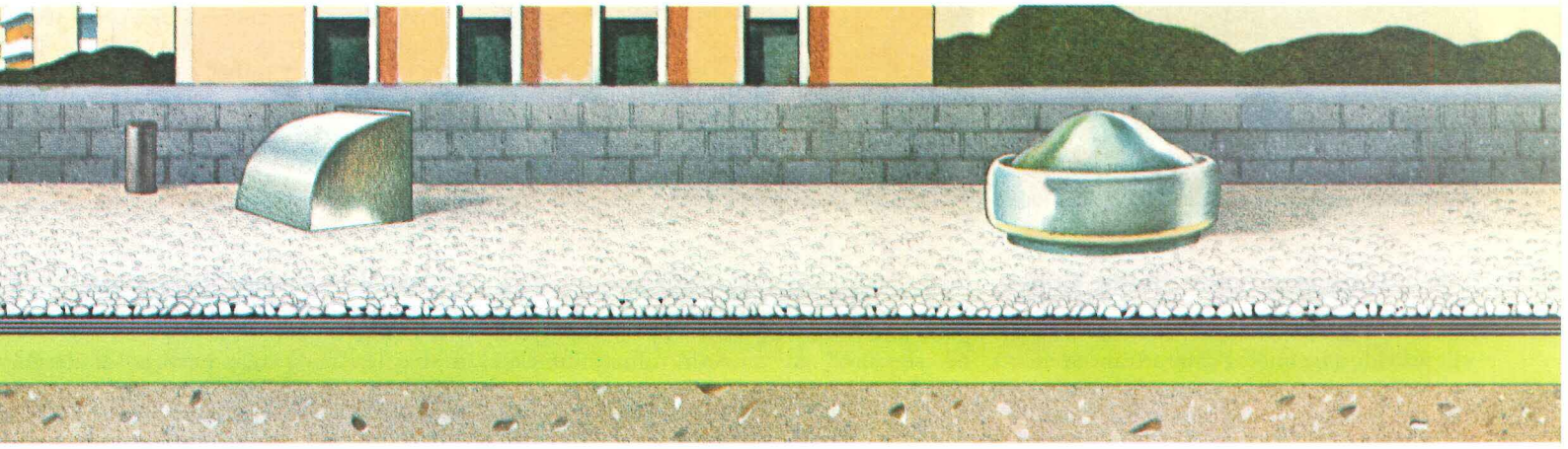
Competitions

Registration deadline July 31. The Passive Systems Division of the AS/ISES (American Section International Solar Energy Society), in cooperation with SERI (Solar Energy Research Institute), announces a program of Passive Solar Design Awards. Deadline for submission of entries is Aug. 31, 1980. Information is available from Passive Solar 1980, Box 778, Brattleboro, Vt 05301. Tel. (802) 254-4221.

Deadline Sept. 1. P/A Awards submissions. See pages 15 and 16.

Registration deadline Sept. 1. Helios Tension Products of Redwood City, Ca, is sponsoring a competition for the design of a tension membrane outdoor theater. The deadline for submissions is Oct. 15, 1980. Information is available from Helios, 1602 Tacoma Way, Redwood City, Ca 94063. Tel. (415) 364-1770.

[*News report continued on page 52*]



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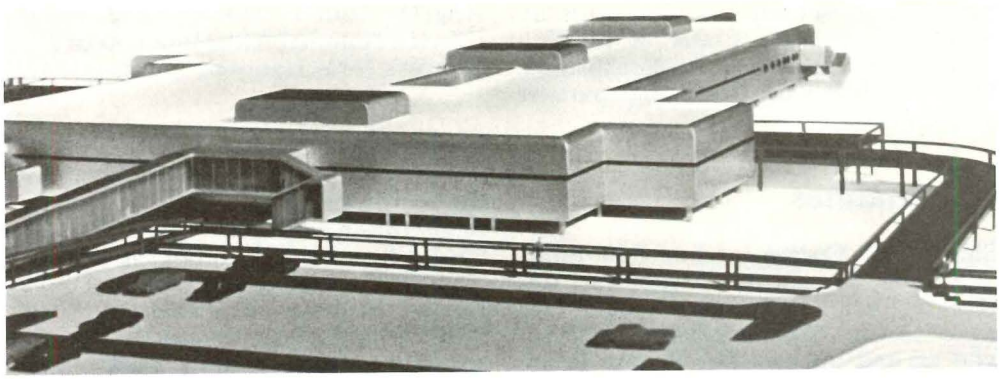
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News report continued from page 51

In progress

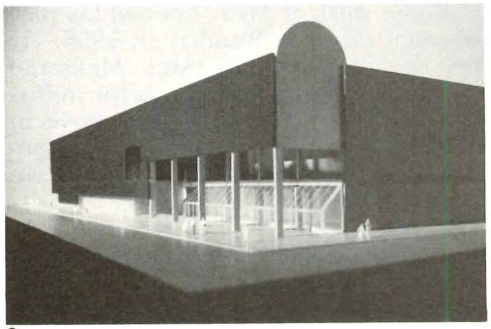
1 Bethel Comprehensive Health Center. 2 Alcan World Headquarters. 3 Harlem Shopping Mall. 4 Mercantile Bank Building. 5 Capitol Commons.



1

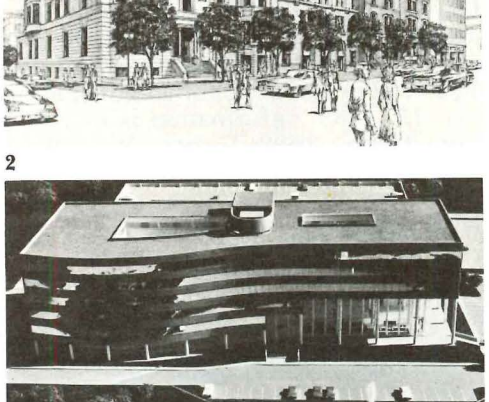


2



3

Gil Amiaga



4



5

1 Bethel Comprehensive Health Center, Bethel, Ak. *Architects: Caudill Rowlett Scott, Houston.* This 95,000-sq-ft, 50-bed hospital will provide a technologically advanced medical facility in a remote area, while responding to a unique set of environmental restraints. The Center will have complete diagnostic and treatment areas, support facilities, and operations for community and state health care organizations. A geo stationary satellite over Hawaii will make remote diagnosis possible by linking the hospital to a tertiary health care center in Fairbanks. The design for the one-story building arranges expandable departments around a central spine which contains waiting rooms and lounges. As the construction period in the area is short, and as barge service is limited, the structure will consist of lightweight prefabricated elements to be installed by local labor. Long steel piles will provide a stable base in the permafrost. To prevent the permafrost from melting, these piles will extract heat from the ground by convection, and the building will be elevated to permit free air movement across the site. Taking its cue from the indigenous igloo, the entrance will be through a tunnel at the south side. Small, triple-glazed strip windows will minimize glare and reduce heat loss. The building will be sheathed in smooth, aluminum-clad panels.

2 Alcan World Headquarters, Montreal, Que. *Architects: Arcop Associates, Montreal.* Elegant mansions and fine terraced housing have graced Montreal's Sherbrooke Street, but the last two decades have seen corporations, developers, and even such institutions as McGill University destroy these turn-of-the-century buildings and replace them with nondescript Modern towers. Alcan Aluminium Limited, however, is planning to reverse this trend, by locating its new world headquarters in four existing buildings, three of them graystone townhouses (now used for office and boutiques) built between 1871 and 1895, and the fourth a hotel built in 1928. The 220,000-sq-ft development will include ground-level boutiques, restaurants, and promenades, with office space on the upper floors. A glass-covered 40-ft-high gallery will link the existing buildings to new four- and seven-story structures to be built on adjacent vacant lots. Completion is scheduled for early 1983.

3 Harlem Shopping Mall, New York, NY *Architects: James Stewart Polshek & Partners Bond Ryder Associates, New York.* Harlem Mall with 185,000 sq ft of retail space distributed over four levels, announces itself brightly to 125th St., a major retail corridor. At ground level, glass block defines the building line and is illuminated to activate the street front at night. Above this, colored metal panels cloak the building, turning the corner with a curve, and raising and lowering at the bottom edge to define major openings. Inside, a vaulted gallery rises from subway concourse level, through the four shopping levels, to the roof, providing a vertical organizing element and a horizontal link from one street corner to the opposite street edge. On all floors there is an equal mix of department store area and boutique-like shops. The major portion of the building has a conventional longspan steel joist floor construction and the vaulted gallery is built of precast quarter-circle vault sections and piers.

4 Mercantile Bank Building, San Antonio Tx. *Architects: Skidmore, Owings & Merrill Houston.* San Antonio is now acquiring its first SOM-designed building, a handsome 217,000-sq-ft, six-story structure clad in silver reflective glass and pearl gray granite. The building is planned around two large atriums, one three stories high and one which rises the full six stories, both topped by tinted glass skylights. The main entry, on the northwest corner of the building, is through a three-story glass-enclosed space which houses the public banking facilities of the Mercantile Bank. This space is detailed with 40-ft-high pipe trusses supporting a clear glass curtain wall. The landscaping of the 7½-acre site includes a large semicircular pool with a fountain facing the visitors' parking area.

5 Capitol Commons, Sacramento, Ca. *Architects: Stoller/Partners, Berkeley.* The Capitol Area Development Authority has selected a design featuring solar heating for development on a leased block along the Capitol Mall in Downtown Sacramento. Capitol Commons will consist of 92 condominium units, 10,000 sq ft of commercial space, a variety of outdoor spaces, community gardens, and underground parking. The buildings range from two-story housing units and commercial spaces on the south to a six-story apartment building on the north, relating in height to the surrounding neighborhood. All dwelling units employ passive solar heating (with back-up heating and cooling systems), through-ventilation, solar water heating, and massive construction to hold energy costs to an estimated $25 per year, per unit for space conditioning. There is also provision made for composting and for recycling of wastes. Each dwelling unit has a private balcony or a patio, and public spaces include a plaza and a large green "Commons." The majority of the units are accessible to disabled people, and over a third can be occupied by those in wheelchairs. Completion of the $12-million project is expected in late 1981.



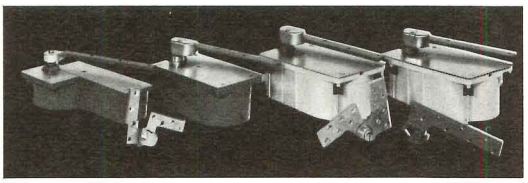
Carson, Pirie, Scott & Co., Chicago
Louis Sullivan, 1899.

the Young Century

Giants were at work in Chicago; Sullivan, Root, Adler, Perkins, Burnham, the young Wright. And their buildings serve well the society of now.

Among them worked a young Finnish architect, Oscar Rixson, devoted to their concepts of the superbly functional, the purity of architectural line. For them he developed a door control to be concealed in the floor; stronger, more durable than any closer known before, or after.

Rixson closers were specified for almost every major building designed by the leaders of the time. Many still control doors reliably, decade after decade. Yet, just as others further developed the ideas of "The Chicago School," so has the Rixson floor closer been improved, in literally scores of ways. At no time since 1900 has anyone ever made a better, more economical closer than a Rixson.



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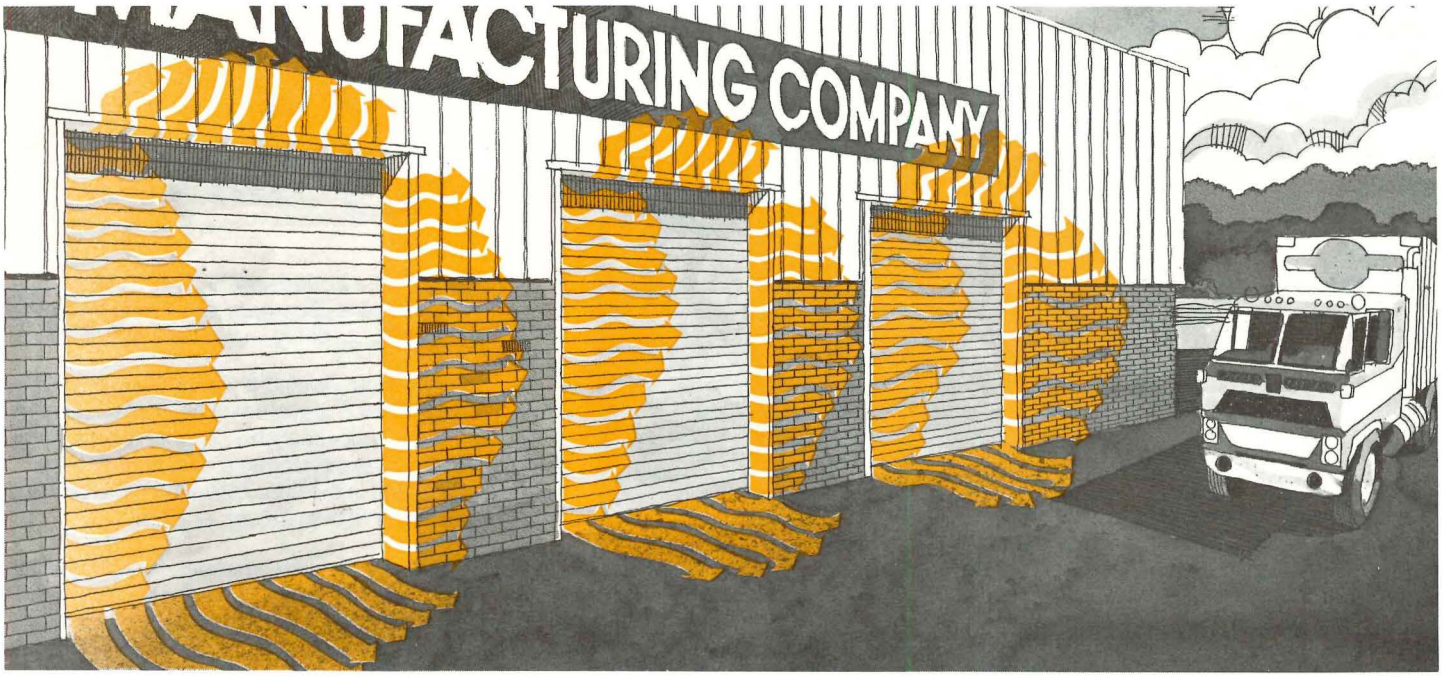
RIXSON-FIREMARK

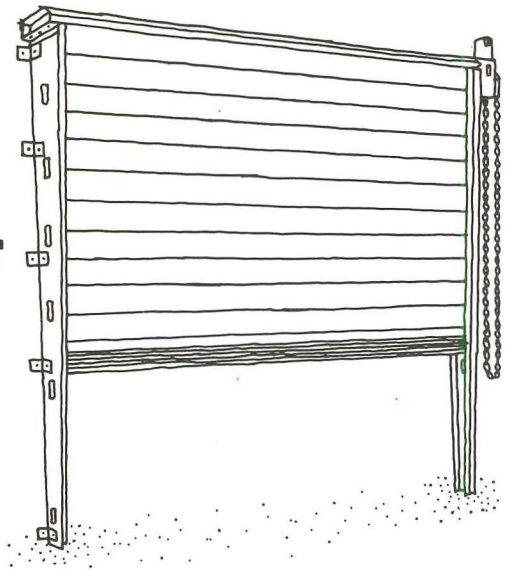
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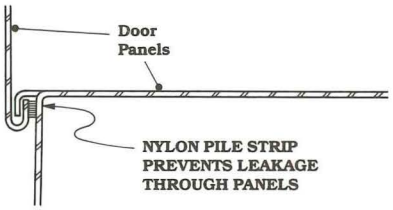
The Inryco® Telescoping Door reduces air leakage for long range savings!

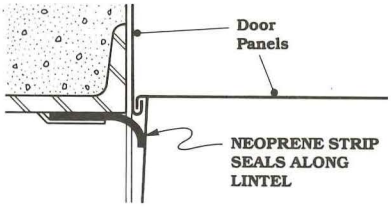
Air infiltration through vehicle door perimeters wastes energy—can add hundreds of dollars per door per year to a building's operating costs.

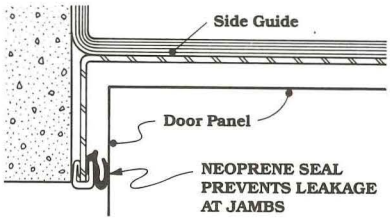
The Inryco Telescoping Door reduces such waste dramatically. Tested at 1.56psf air pressure (25mph wind) it achieved an infiltration rate of only 0.93cfm per foot of perimeter. Calculated rates for most other doors are at least three to six times higher. That translates into substantial life cycle savings.

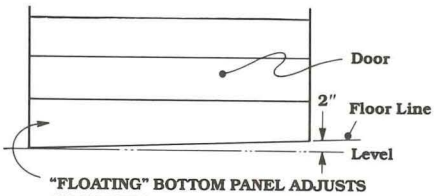
Check the Inryco Telescoping Door before you specify. In addition to energy conservation, its unique design provides high cycle usage, offers long term maintenance savings, reduces down time and curtails noise.

For full details, see our Catalog 36-1 in Sweet's, section 8.8/In, or write for a copy: Special Products Group—Milcor Division; INRYCO, Inc.; Dept. G-4069; P.O. Box 393; Milwaukee, WI 53201.









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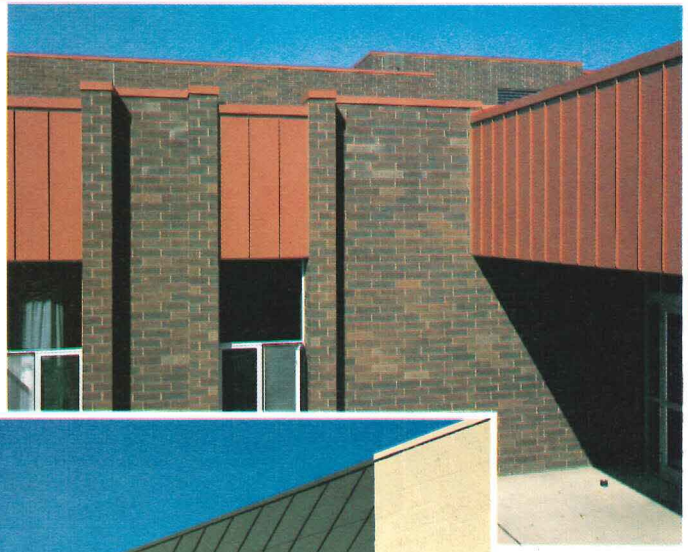
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AO-36-2

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The small building artistically considered

Here, as in the June 1979 issue, P/A examines a group of buildings with little in common except small size, down-to-earth programs, and exceptional quality.



This month, we have again gathered a collection of small buildings that the P/A editors consider outstanding responses to programs that were basically not very promising. They are not follies or other little experiments commissioned by high-minded patrons, but are designed for hard-headed purposes to meet stringent budgets. They represent the kind of commissions within the reach of just about any architectural practice.

In reviewing the five small works we have chosen for publication here, it is tempting to consider just what principal points each one makes—without getting bogged down in a typological discourse. Two of the works shown, for instance, are actually only additions to existing structures; one of these is praiseworthy for not being too assertive, the other for giving an assertive focal point to a complex many times its size. Of the three whole new buildings represented here, one is exceptional for the very soft-spoken way it mediates among diverse existing buildings; another introduces its vigorous individuality—albeit at modest scale—to a town setting; the third confronts only woods and water. (We'll let you identify which building fits which of these oversimplified categories.)

Among all the buildings presented here, only one represents a thorough integration of energy considerations into design, a fact that underscores the gulf still to be bridged between considerations of form, plan, detail, etc., and those of energy. Much of the admirable architecture being completed today—at any scale—was designed when energy concerns were hovering around the threshold of awareness for most practitioners. In the case of this one intriguing example of energy-conscious design, we have included an Energy Analysis as part of our on-going series (P/A, April 1980, p. 101).

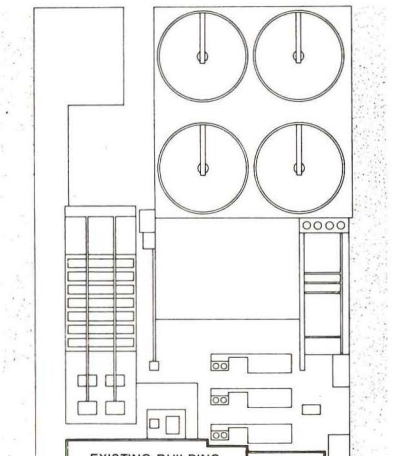
Buildings at this scale are never a bonanza for the architects, but often an opportunity to demonstrate design skill and practicality, as a basis for larger commissions. The advantage they often hold out, compared to those larger jobs, is the opportunity to develop a design that expresses the architect's convictions with a special clarity. See what you think of these efforts. [John Morris Dixon]

Municipal Control Building
Quail Valley Utility District
Missouri City, Tx

Putting up a good front

Peter C. Papademetriou

A modest addition to a utilitarian facility, looking larger than its size, creates an environment that exceeds its program.



Peter C. Papademetriou, P/A correspondent in Houston, was previously associated with Taft Architects and has been in separate private practice since last year, before this work was commissioned.

An addition to a sewage treatment plant is definitely not one of your glamour commissions, but the young Houston firm of Taft Architects has shown that even extremely modest jobs can contain multiple architectural ideas.

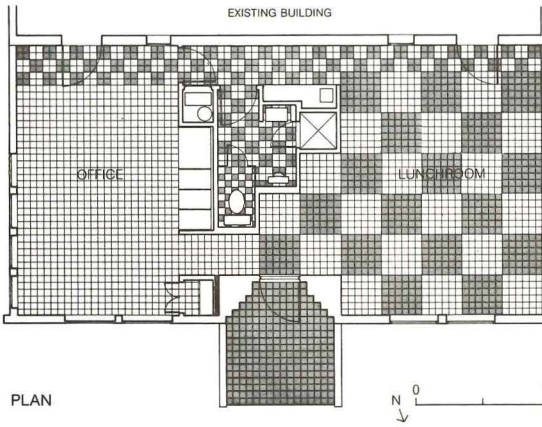
The Quail Valley sewage treatment plant, the largest oxygenated facility in Texas, is in the middle of a subdivision, in plain view of the public golf course that threads through its center. After completion of the facility in 1978, the clients found that a control building was needed for plant security, to provide an office for the supervisor, and to give workers a small lunchroom/lounge for 24-hour use. A better image to the community was also desired, as well as a clearly understood entry. Given the 1000-sq-ft programmed size, the decision was made to design the project as an extension to an existing control lab building, orienting the facility toward the main views from the golf course, and terminating the access route.

Rather than indulge in high-tech images that might unduly celebrate the technology of the plant, the architects opted for a set of references that is more banal, in the root sense of "common to all"—readily and consistently understood. A bare-bones budget also encouraged such an approach.

The images chosen were those of the countless 19th- and early 20th-Century "civic" utility buildings built all over America. The oversized globe lights flanking the entry reinforce recollections of municipal buildings, as does a semicircular tile identification over the door transom (designed and crafted by the architects).

Essentially, the building is a box with a façade applied to it, a point underscored by the projection of the frontal plane beyond the corners of the box. The symmetry and thinness of this façade produce a scale larger than its dimensions. The false-front image is furthered by the conjunction of two exterior surface materials, a dark, reddish-brown tile and a beige stucco (which coincidentally pick up the colors of the large adjacent metal buildings). The tile grid does not "fit" the pattern of stucco laid over it, thus establishing the independence of the two patterns, which seem to be in overlapping planes. The ambiguous stucco window surrounds further this reading of overlap.

By contrast, the entrance is volumetric, the tile surface appearing to pull through the stucco plane. The stepped recession of arches



above the door and the stairs below combin to enlarge its scale.

This volumetric treatment is picked up i the interior, essentially a large space divide by a central core, which is laid out in an eche lon plan, keyed into a series of lateral coffer The steps in the core plan are the basis i turn of a checkerboard floor tile pattern.

The sets of stepping windows along bot sidewalls imply that the volume of the inte rior, once the frontal plane is penetrated should be read as a series of successive spati "layers" emphasized by the ceiling beam coffers. But the diagonal progression create by the plan of the core at the entry disrup an axial, frontal sequence. The doors re quired for office privacy also make it hard t read the core as a dense element inserted i the space. It may be that, despite thei geometrical affinity, the concept of positive negative interior volume and the idea o layering work somewhat against eac other—or that the project is too small phys cally to contain both.

Better perhaps to view modest projec with too many ideas optimistically, as havin the potential for creation of livable, speci environments for their users. That heav conceptual ideas can find their place in a external image which is meaningful and un derstood is a goal to be sought in any desig Perhaps as important is that all these inter tions were attempted in a project which cam in slightly below budget, an enviable case o having your cake and eating it too. □



ata

roject: *Municipal Control ilding, Quail Valley Utility strict, Missouri City, Tx.*

rchitects: *Taft Architects, ouston (John J. Casbarian, nny Samuels, Robert H. mme, partners; Scott Waugh, oject assistant; Jeffrey Averill, arc Boucher, support team; yce Rosner, ceramic tile execun; Candace Timme, interior rnishings).*

te: *attached to existing buildg of Quail Valley Waste eatment Plant.*

rogram: *1000 sq ft for office d lunchroom.*

ructure: *wood frame on conte slab.*

ajor materials: *stucco, quarry e, gypsum board, aluminum ndows.*

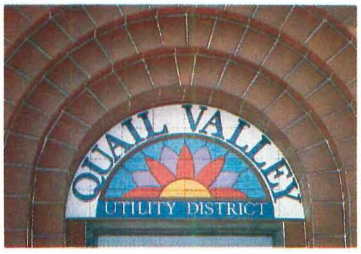
echanical system: *electric it system.*

onsultants: *R. George Cunngham Associates, structural.*

eneral contractor: *Chandler binson, Huisache Construcn Co.*

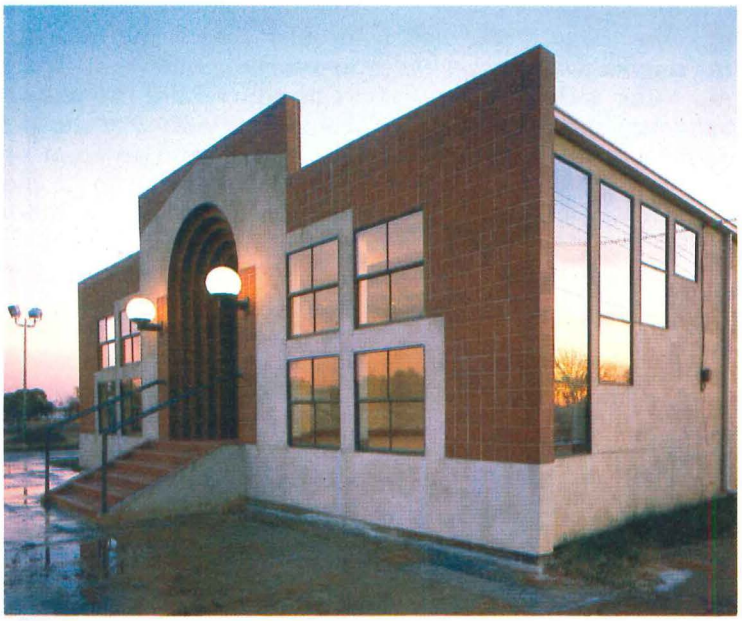
osts: *$47,000 (1979); $52 sq ft.*

notos: *by architects, except as ted.*









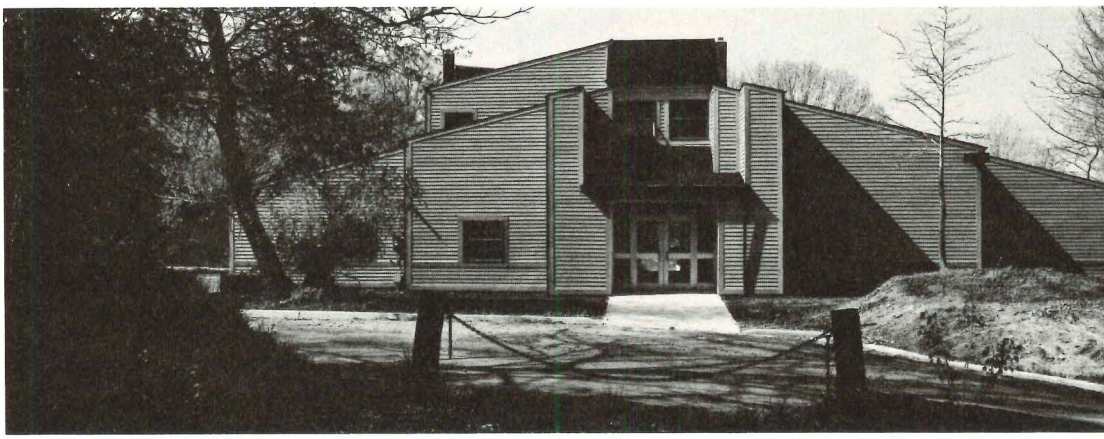
Mark Scheyer

The façade (color photo) recalls in its composition the municipal pumping stations of City Beautiful and WPA vintage. The slope of its "pediment," however, is close to that of nearby tract house roofs. Seen from inside (left), side windows fit between roof trusses; windows in front wall reflect its formal composition.

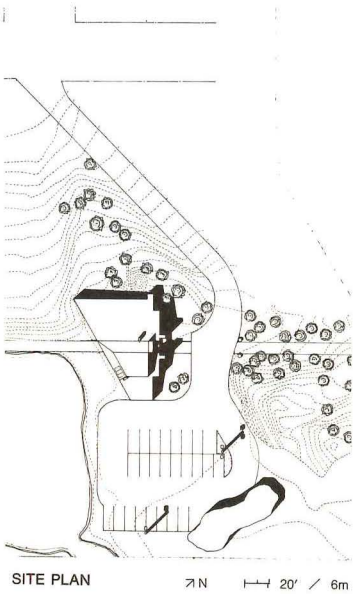
Nature Center, Englewood, NJ

Along the path

Within a stone's throw of New York City, a nature center in an idyllic setting brings the public together with the sun and with the environment.



Nearly symmetrical about the main path, the front entry facade has relatively few openings. On the opposite, pond-facing side, the angled wall catches the south sun with skylights, windows, and vertical active solar collectors.



SITE PLAN ↗N ⊢⊣ 20' / 6m

In keeping with its purpose, the building housing the Flat Rock Brook Center for Environmental Studies is an uncomplicated and responsible solution to a worthwhile problem. As is the aim of similar facilities across the country, the Center is to provide a reintroduction of the public to the environment. It is located at the abrupt entrance to 75 acres of land adjacent to fairly standard residential blocks in a pleasant northern New Jersey town. Also similar to other sites in the "Northeast Corridor," these surroundings escape the stereotyped view that nowhere is there any respite from cars, concrete, or people here. Abutting an abandoned quarry, the Nature Center enjoys an almost unreal serenity at the southern edge of New Jersey's wooded Palisades.

While there are paths throughout the Center grounds, the main path bisects the building and becomes part of the program. As a "place" along the path, the facility offers a 10-ft-wide central hall which can be opened both at the ends and along its length, for activities inside to intermingle with the path. Architects Ballou-Levy-Fellgraff and the designers/environmental consultants, Total Environmental Action, sought maximum flexibility and a responsive building in an energy sense, as well. The designer and project manager, Daniel Scully of TEA, notes that the Center is also to perform in the role of a teaching tool, demonstrating simple solar concepts applicable on a broad basis.

Meeting room and workshop areas are located along the south-facing elevation, on opposite sides of the center hall. The main orientation of the second-floor director's apartment is also on the same wall, although direct heat gain through windows and skylights is the extent of solar contributio there—there is no heat storage. Instru tional areas are heated through both activ and passive solar collection, floor slabs both major spaces absorbing heat for rerad ation. Between the meeting room and th outdoors is a greenhouse, which opens closes through sliding doors; insulating shu ters can be rolled down outside to hold he in the space or repel it. Also in the gree house space are 12″ x 8′ vertical, wate filled plastic tubes for further heat colle tion.

Windows in the workshop are protecte from summer sun by a shading trellis, ar there also are sliding shutters. The acti components are wall-, not roof-mounte hot air collectors which were site fabricate Ducts connect the panels to a rockbed he storage compartment between the worksh and the offices. The heat can alternative be directed to the staff offices. Backing u the solar heating system is a gas-fired wat unit.

By Scully's predictions, the design w reduce the building's heating requireme by about 50 percent. Direct gain calculated to contribute 11 percent in t workshop, 17 percent in the greenhous and 6 percent in the apartment. The two a tive collectors are expected to produce additional 15 percent.

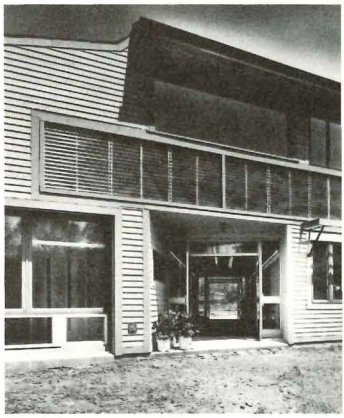
The energy analysis shown on page does not consider the active system, figures shown are not comparable. Th study clearly points to the insulating shutte





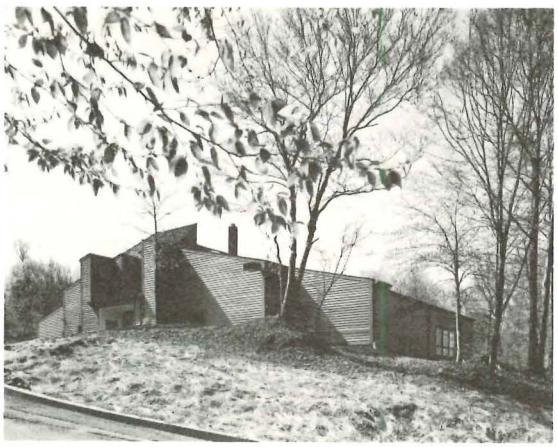
as the key to the energy performance of the center. Also noted in the analysis process was the building's unique pattern of use, with instructional spaces being occupied by groups varying from large to small, different in various seasons. In addition, each major room has its own independent thermostat, making control less than predictable. The building has yet to go through a year of operation, so exact performance figures are not available. [Jim Murphy]





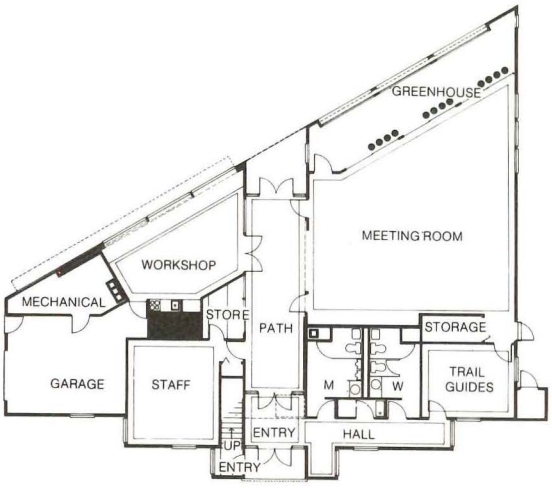








SECOND FLOOR



FIRST FLOOR

N

10' / 3m

Data

Project: *Flat Rock Brook Center for Environmental Studies, Englewood, NJ.*

Architects: *Ballou-Levy Fellgraff; Allan Ballou, partner in charge, Ed Levy, production and construction administration.*

Designers/environmental consultants: *Total Environmental Action, Inc.; Daniel Scully, designer and project manager; Harold Dietrich, design draftsperson; Winslow Fuller, solar engineering; Jennifer Adams, solar draftsperson.*

Client: *Flat Rock Brook Nature Association; Maggie Ramonas, director.*

Site: *75 acres, rocky, wooded abandoned quarry.*

Program: *meeting and work space for environmental studies, including assembly room for 100 persons and director's apartment.*

Structural system: *2" x 6" wood frame on concrete foundation and slab.*

Major materials: *cedar siding, gypsum board interior walls, insulating shutters, solar storage tubes.*

Consultants: *structural, Otokar Van Bradsky; I Shiffman.*

General contractor: *Keljed Corporation.*

Costs: *$62/sq ft.*

Photography: *Joseph Molitor.*

Ducts convey heated air from the collectors to a rock storage area behind the workroom. Although not a greenhouse in the normal sense, the buffer space for the meeting room contains water-filled tubes (left, lower center) which can collect and store heat.

Energy analysis

This analysis was prepared in the Center for Planning and Development Research, College of Environmental Design, University of California, Berkeley; Vladimir Bazjanac, Ph.D., Project Director. The work is funded by the U.S. Department of Energy.

Flat Rock Brook Nature Center incorporates several energy conservation features. Rather than analyzing only the performance of the building, we use this energy analysis to compare four different simulation models. The models differ in concepts of analysis, ability to model specific design features, and in the type of generated information (P/A April 1980, p. 100). The charts show the scope of each analysis and summaries of resulting information typical of each model. The analyses focus on the "design day" approach since TEANET and LBL/PASSIVE cannot simulate annual performance. The performance of mechanical systems (including active solar) is not considered. Cooling load in the building is ignored because there is no mechanical cooling.

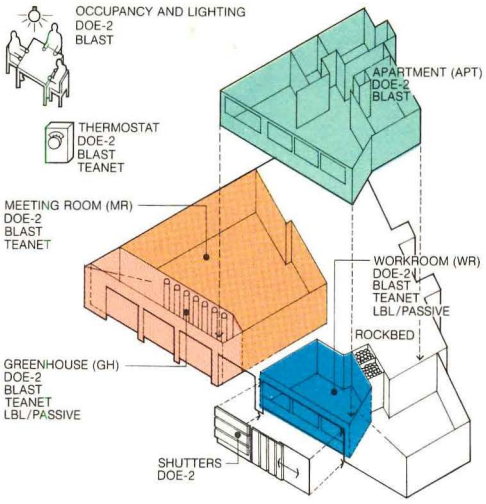
Weather conditions simulated on "design day" analyses correspond to a typical winter day (Jan. 15). Insolation data for that day are calculated independently by DOE-2 and BLAST. Both calculator programs were run on a Hewlett-Packard HP-67. DOE-2 and BLAST use a TMY weather tape for New York for annual analysis.

DOE-2 analysis was prepared using the DOE-2.1 version and its custom weighting factors option to model the thermal mass of the building, residential infiltration, and conductance schedules to model the operation of thermal shutters. Some of the effects of the use of these options are clearly visible in the analysis of hourly loads. For example, solar gain at night is the delayed component of gain through windows, and the distinct changes in conductance and infiltration losses at 9 a.m. and 5 p.m. result from the operation of shutters. The solar gain report in the hourly thermal load chart does not include the gain in the greenhouse because the greenhouse is unconditioned. Hourly thermal load analysis includes the use of thermostats in all conditioned spaces. The modeling of thermostat controls is not included in the DOE-2 analysis of passive performance (temperature fluctuation chart), which assumes free temperature floating in all spaces.

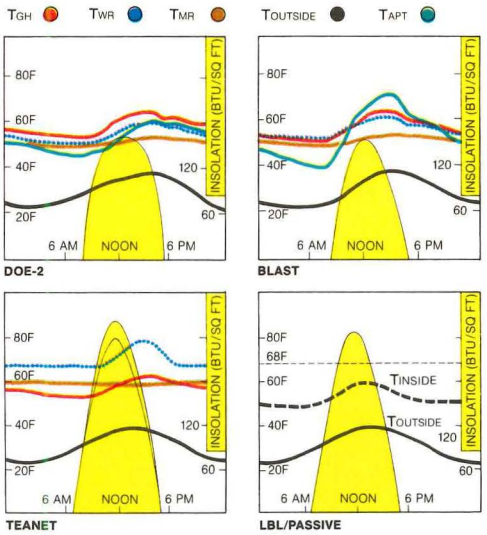
Analysis with BLAST was prepared using BLAST/MRT, version updated at the Lawrence Berkeley Laboratory (LBL). The Nature Center's thermal zoning with BLAST is very similar to the one used with DOE-2, and the same assumptions are made for hourly load and passive analyses respectively. High losses predicted by BLAST at night result from the lack of simulation of the use of shutters (which cannot be modeled by BLAST). Changes in load reported by BLAST at 9 a.m., 6 p.m., and 10 p.m. result from changing thermostat settings.

The analysis with TEANET assumes auxiliary heat supply in the workroom when the temperature in that space drops below 68 F. The simulation required two separate runs: one for the greenhouse and one for the workroom. Analysis with LBL/PASSIVE abstracts the building into six different surfaces and no auxiliary heat.

The annual heating load simulated with DOE-2 is 9274 Btu/sq ft; with BLAST it is 17,662 Btu/sq ft. The difference partially results from the difference in concepts of analysis in DOE-2 and in BLAST, and from the omission of simulation of thermal shutters by BLAST.



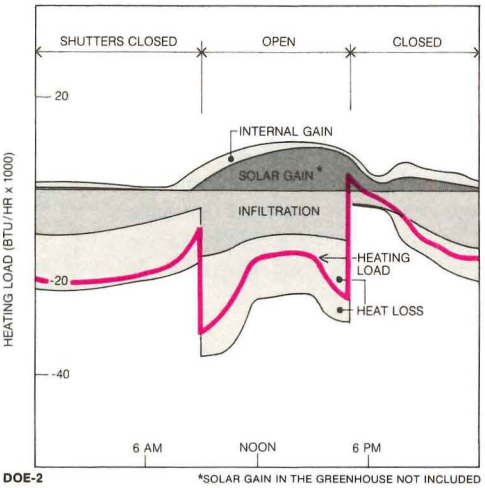
BUILDING FEATURES ANALYZED BY
THE DIFFERENT SIMULATION MODELS

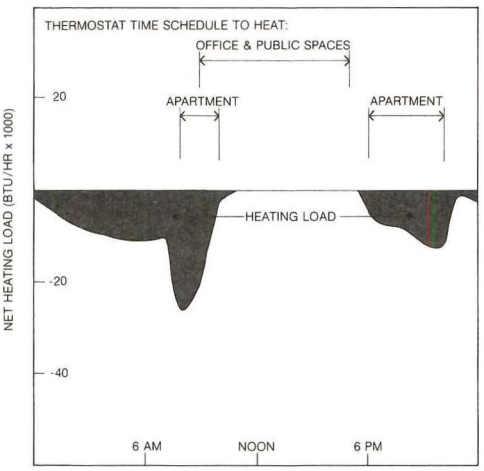


INTERIOR SPACE TEMPERATURE AND INSOLATION INTENSITY
SIMULATION USING FOUR DIFFERENT MODELS
WINTER DESIGN DAY CONDITIONS



FLAT ROCK BROOK NATURE CENTER





HOURLY THERMAL LOADS FOR THE ENTIRE BUILDING
WINTER DESIGN DAY CONDITIONS

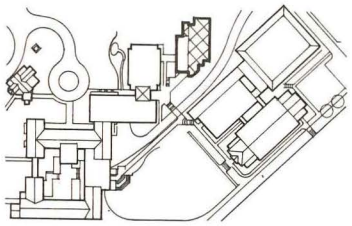
There is no absolute agreement among the four models chosen, but the trends they show are similar. The use of a model will help to understand the forces which shape the building's energy performance. The modeling of a building with TEANET and LBL/PASSIVE is abstract without specific consideration of geometry. Most subtleties of architectural design are thus lost. DOE-2 and BLAST model a building's geometry and allow the consideration of much more detail; they also generate much more useful information about the analyzed building.

Simulations with BLAST were done with the help of Ron Kammerud and Brandt Andersson of LBL. Modeling with LBL/PASSIVE was done under the supervision of the program's authors: David Goldstein and Robert Clear, of LBL. TEANET analysis closely followed the analysis by Winslow Fuller of TEA.

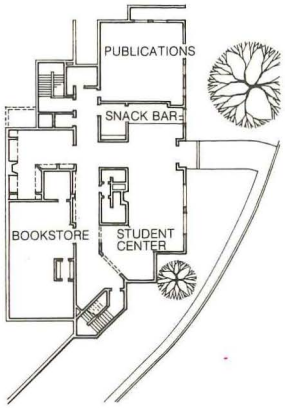
Steuart Building, St. Albans School, Washington, DC

Material connections

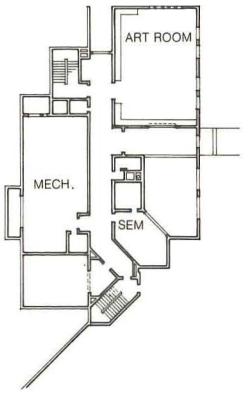
Contextual values guided the design of a building with five classrooms, art, music spaces, and student lounge for a prep school addition by architects Keyes Condon & Florance.



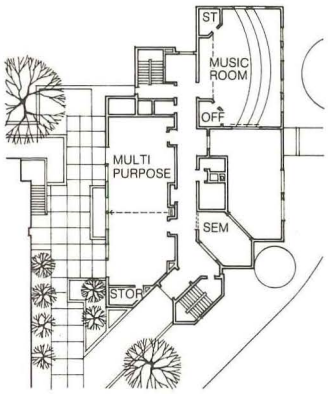
SITE PLAN N 100'/30m



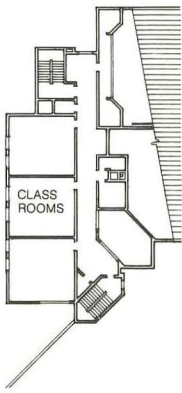
FIRST FLOOR 20'/6m



SECOND FLOOR



THIRD FLOOR



FOURTH FLOOR

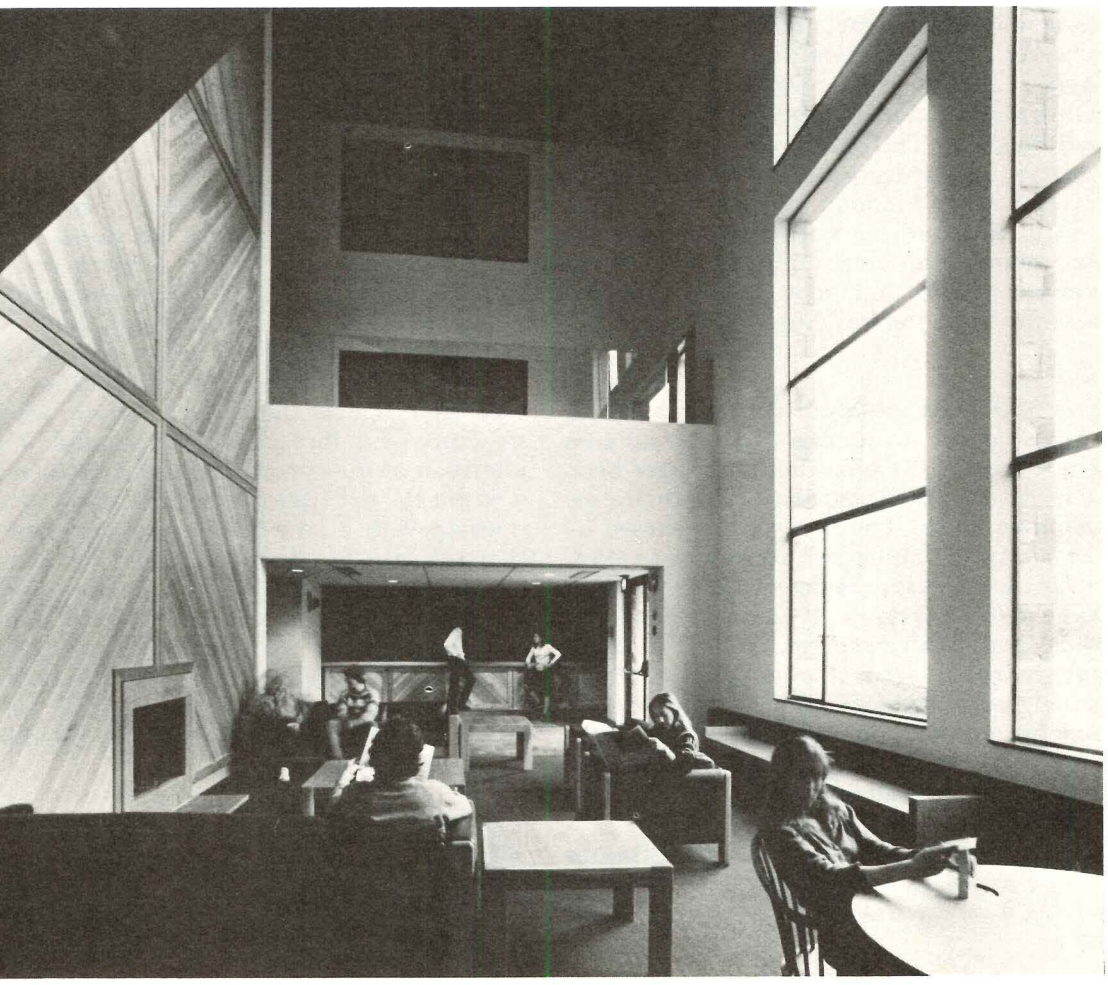


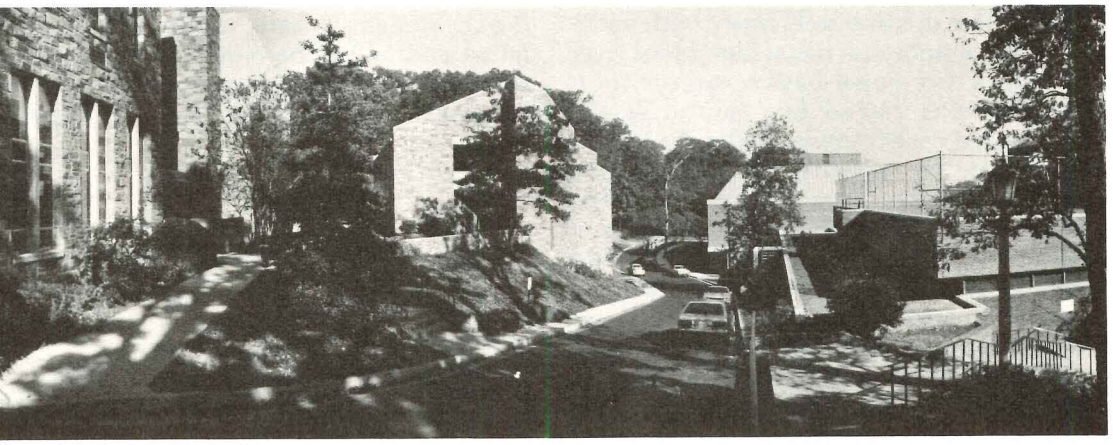
This rubblestone building for the St. Albans campus in Washington appeals because of the way it adjusts to its natural and architectural context. Its configuration of shifted shed roofs and staggered masses and its heavy quarry stone walls all convincingly relate both to the style and the siting of the older Collegiate Gothic school nearby. Parts of the quadrangular campus, adjacent to the National Cathedral, date to 1907. Yet the architectural ensemble has been disfigured in recent years by the introduction of some faintly Gothicized "Modern" architecture.

As this new mixed-use building demonstrates, the nature of the material, the treatment of masonry load-bearing walls as massive elements, even the use of dark mortar, made the difference. Furthermore, the insertion of the four-floor structure into the steep slope diminishes the bulk. The staggered massing echoes the vertical character of the older buildings; the angled southwest corner defers to their siting.

Inside, straightforward detailing and reliance on natural materials create a bland but comfortable ambiance. The expanses of interior glazing dramatically open up space, light, and views, with a major focus the double-height windows in the three-story lounge. If the relationship between the Modern plan and the massive "pre-Modern" wall is unresolved anywhere, however, it is on this south wall exterior: proportions of the openings to the wall do not create an effective solid/void balance.

Across the street, the architects also tried to fit a new gym to the site and make it blend with the old Gothic brick activities building next door. Unfortunately, it didn't quite come off. Despite the choice of brick, the sloping terne metal roof, the belt course and coping in precast concrete, the brick walls remain too strongly horizontal, uniform, and monolithic. [Suzanne Stephens]





Data

Project: *Steuart Building, St. Albans School expansion, Washington, DC.*

Architects: *Keyes, Condon & Florance, Colden Florance, principal in charge; Nguyen Duy Tam, associate partner; Raymond Hare, Jr., associate; Charles Farrell, design team.*

Site: *rolling campus of a church school at National Cathedral Close.*

Client: *St. Albans School, General T.J. Camp, administrator.*

Program: *20,400-sq-ft multipurpose building for art, music, lounging, seminars, adjacent to new gymnasium (13,000 sq ft) by architects, plus renovated activities building (15,700 sq ft) and sports deck.*

Structural system: *masonry wall bearing structure, steel bar joists, concrete slab, metal deck.*

Major materials: *quarry stone and CMU cavity walls, terne-coated stainless steel roof, precast concrete lintels, steel sash, tinted double glazing, slate and hardwood floors.*

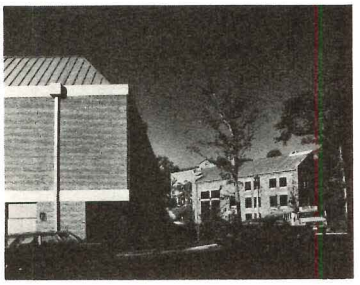
Mechanical system: *heat exchanger using central system; low-temperature hot water perimeter heating with interior variable air volume system. Roof structure engineered to receive solar panels.*

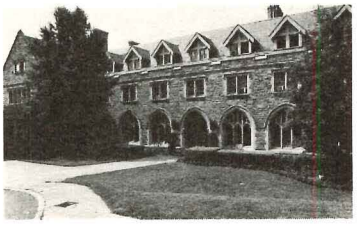
Consultants: *Interspace Inc., interiors; James Madison Cutts, structural; Syska & Hennessy, Inc., mechanical; Associated Engineers, Inc., other.*

General contractor: *R.T. Woodfield.*

Costs: *$1 million; $49 per sq ft.*

Photography: *Gary P. Fleming, color; Robert Lautman, black and white.*





Student center (upper left); building in setting from southwest (left) and east (top); early campus building (above).

Olean Central Fire Station,
Olean, NY

A fitting image?

A fire station in Upstate New York designed by Werner Seligmann raises questions about users' perceptions and preferences.

When the New York town of Olean decided to replace a small, secondary fire station with a new one that would become its main facility, it called upon architect Werner Seligmann. His work was already known to the town through some earlier and admired New York State UDC (Urban Development Corporation) housing. What the town got in its new (and to some, misguided) venture, however, was a building that is reviled by its users in almost exact reverse proportion to its (to some, undeniable) formal distinction and elegance. The building raises important questions about its fit, as far as the users are concerned, its function, and equally important in this case, its symbolic message. Before going into such matters, however, a straightforward and, it is hoped, unbiased description of the building is in order.

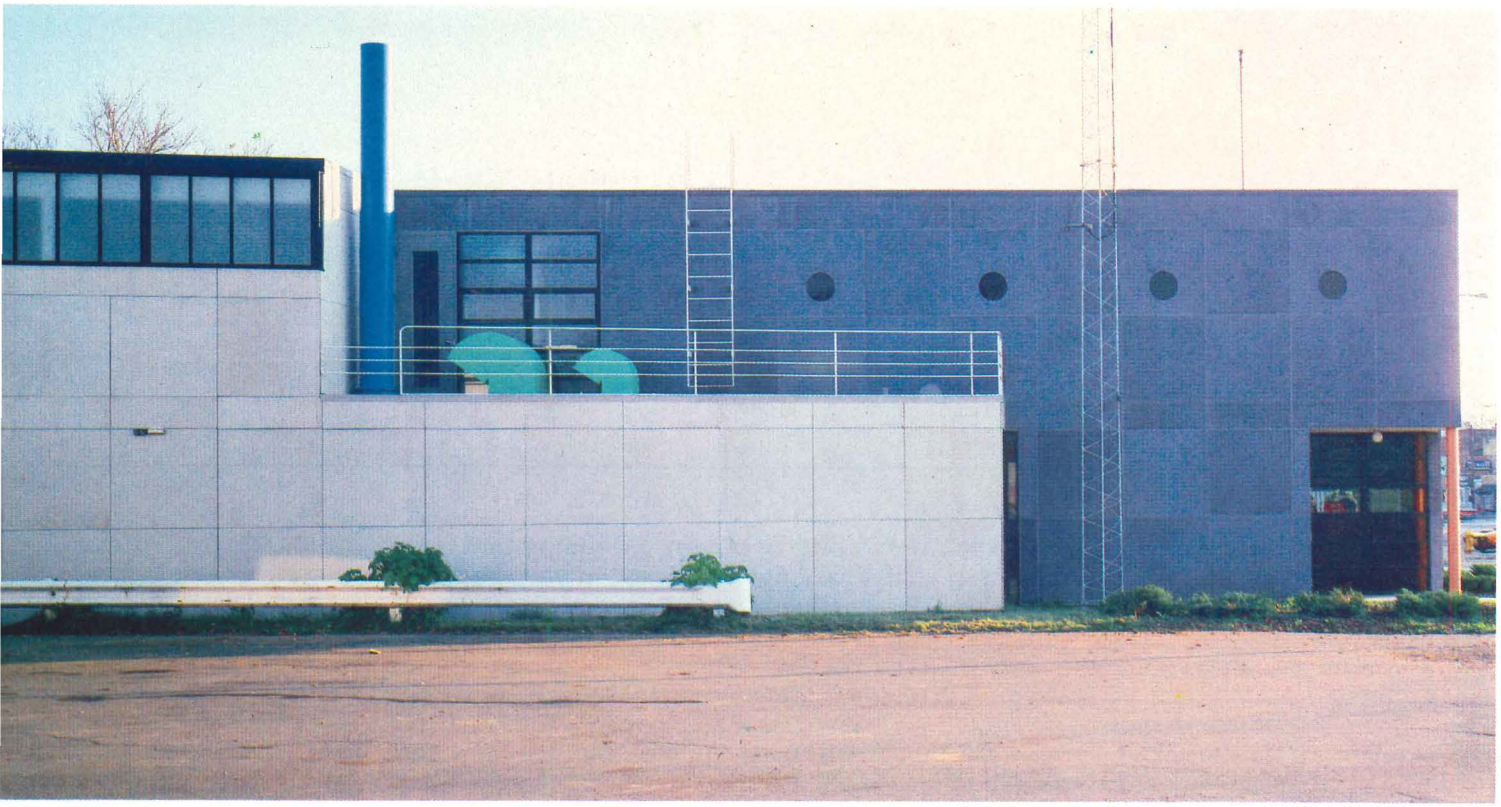
The site
The 8200-sq-ft structure occupies a site at one end of the town's main street in an area where most of the older buildings have been removed and replaced with suburban-type shopping malls. The site was not chosen by the architect, and it is, according to him, really too small for the activities the building was expected to house, if all of them were to be accommodated on one level. As a consequence, spaces other than the garage, which is designed to hold five fire-fighting vehicles and two ambulances, are stacked in a two-story structure attached to the main "shed." This smaller residential/office structure is trapezoidal, as it fills in the north side of a site that is splayed 15 degrees. This section is clearly articulated as a part of the building serving a function different from that of the shed.

The structure
An exposed structural steel frame with open-web joists supports a metal deck roof over the shed. Three equal bays across the front of the building extend five bays in depth. The exposed roof framing of the shed is expressed on the outside of the building through stepping back the large rolling doors, which are separated from the roof framing by glazing. In the residential/office section of light metal framing, conventional dropped ceilings are used, along with standard gypsum-board partitions. The building is clad in dark gray and white panels of a synthetic material resembling stone, along with metal sash compatible with the mod ules of the panels. All exterior parts of th building not panel-clad or glazed, such a the exposed structure, rolling doors, and ex haust stacks, are painted bright colors.

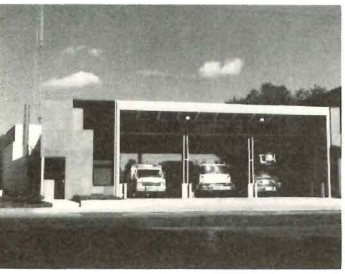
The building is designed to be dry-assem bled as much as possible. As such, it repre sents a continuation of a theme Seligmann has been working on for the past severa years in other buildings, such as his adminis tration building at Willard State Hospital i Willard, NY (P/A, May 1976, p. 78).

The context
The building completely fills its site fron side to side (north to south), but leaves ope driveway space for the fire engines at th front and back (east and west) ends beyon the enclosure of the drive-through shed. T the north, the residential/office part of th building is scaled down in relation to th shed and is articulated as a small, whit structure set before a dark gray ground. Th intention of this, according to the architect is to put the fire station into a favorable rela tionship with a white and gray gas statio that sits on the adjoining corner lot at a odd angle to the fire station. At the south the large apparatus room is set back fron the main street at the same distance as th larger "Italianate" Knights of Columbu building, to which it is joined and wit which it forms a large-scale urban ensembl facing the street.

The users
The firemen (or at least the captain and th men P/A spoke to) are quite outspoken i their attitude toward the building. The don't like it, and it is a source of embarrass ment to them. Their complaints, amon others, are: 1) they were not consulted dur ing the design; 2) some of the exterior pain faded and had to be repainted; 3) the exte rior panels are streaking; 4) the two-storie portion should have been done somehow a



Jon Reis

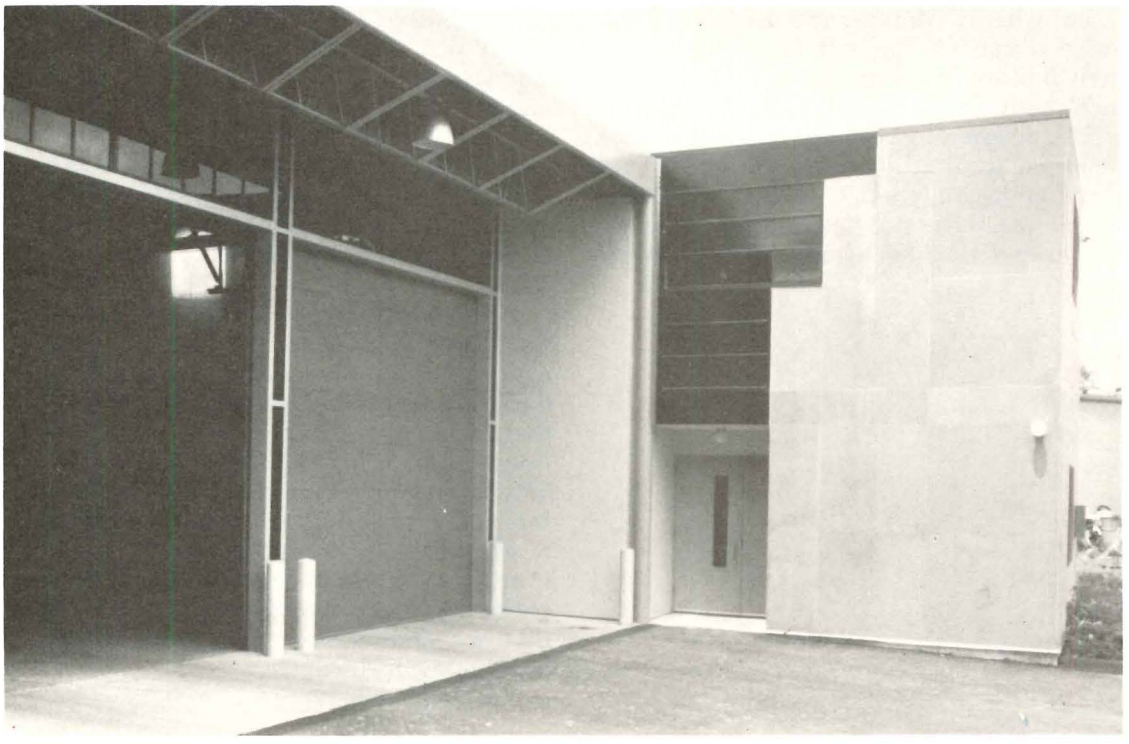


John Reis

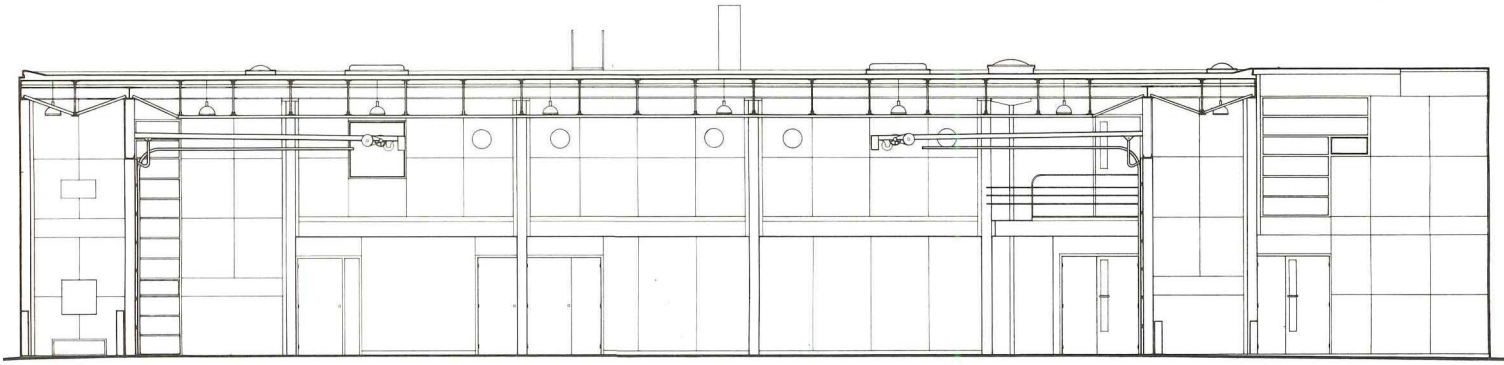


Werner Seligmann

The new fire station in Olean, NY, is decreased in scale on the north side (top) and increased on the west side to relate to the buildings around it. The rear (right) shows the same precise clarity of detailing as the other facades.



David Morton



one story because it is awkward to use; 5) the building doesn't look like a fire station; and 6) they don't know why they "need all this architecture."

The architect

The architect's response to these complaints goes as follows: 1) he consulted with the fire chief who saw and had drawings throughout the design phase; 2) the faded interior paint used on the exterior (because of its particular color) should have been sealed; 3) the exterior panels should have been sealed; 4) the residential/office function would not have fit on the lot in other than a two-storied structure; and 6) —these are real problems.

The real problem

One suspects that the real problem of this building, insofar as the firemen's attitude toward it is concerned, has to do more with its image than with such physical problems as leaking, fading, or staining. While these problems are very real and to some degree exist because cost overruns precluded their correction, they should not be dismissed out of hand. They are, however, not unique for structures where the architect is trying to work out new or unusual techniques.

But what do the firemen think when they go to a convention and are chided about their building by other firemen? The Olean men themselves have called the building the U.S.S. Seligmann because, to them, it looks more like a ship than a fire station. What is really going on, though, is that a group of people who have not been initiated into the mysteries of the high art of architecture have been asked to occupy a building that is exactly that: high art. These firemen have pin-ups on their walls, Barcaloungers in their TV room, and crocheted stuffed frogs on their desks. While it could be argued whether there is anything right or wrong with pin-ups, Barcaloungers, or crocheted stuffed frogs, the point is that the same people who have them don't buy high architecture. At least not usually.

The problem with the Olean fire station is not whether it is a brilliant solution to its programmatic problem in terms of its aesthetics, contextual relationships, and functional resolutions, which this observer thinks it is, but whether a brilliant solution was necessary or even wanted.

If one looks at this building and sees the bold rhythm of the bays of the apparatus room so vigorously terminated by the entry portico, and the composition they form together, then counter-terminated by the white splayed office/residential section of the building, one can read in this single, "simple" façade all of the order, complexity, accidents, and resolutions that occur normally in the richness of the urban texture. Here they have been abstracted, condensed, and distilled into a single unit of extreme sophistication.

But was this wanted? Was it necessary? The answer to the first is, probably no. The answer to the second is harder. On one hand it is very tempting to disavow any elitist tendencies and acknowledge that stuffed frogs are just as good as anything by any "serious" artist. But are they, and should the reader be insulted with an answer to such a question?

What is going on with the fire station is that the right image has not been paired with the right users. This building, though, does not represent the first time in history that has happened. The physical and functional problems of the fire station are probably not insurmountable and with a little effort could be easily overcome. The problem of the image, however, cannot be so easily overcome. While one may have every sympathy for the firemen, one can also hope that in time they may begin to see what they have. [David Morton]

Data

Project: *Olean Central Fire Station, Olean, NY.*
Architects: *Werner Seligmann & Associates; Bruce Coleman, job captain; Val Warke, assistant.*
Site: *flat, urban lot where former fire station stood; one side splayed 15 degrees.*
Program: *a new fire station to replace inadequate facility on site; new station to become central one for town; garage to hold five fire-fighting vehicles and two ambulances.*
Structural system: *concrete foundation and foundation walls; steel frame and open-web joists; light metal framing.*
Major materials: *exposed steel frame and deck, 5/8-in. inorganic mineral fiber-cement exterior panels, gypsum board, steel window frames and panels.*
Mechanical system: *hot-water, oil-fired boiler, unit heaters, pipe-fin radiation; incremental air-conditioning units.*
Consultants: *Synder-Burns Associates, structural; Galson & Galson, mechanical.*
General contractor: *Smith Bros.*
Costs: *$496,000; $60.00/sq ft, including site work, landscaping.*

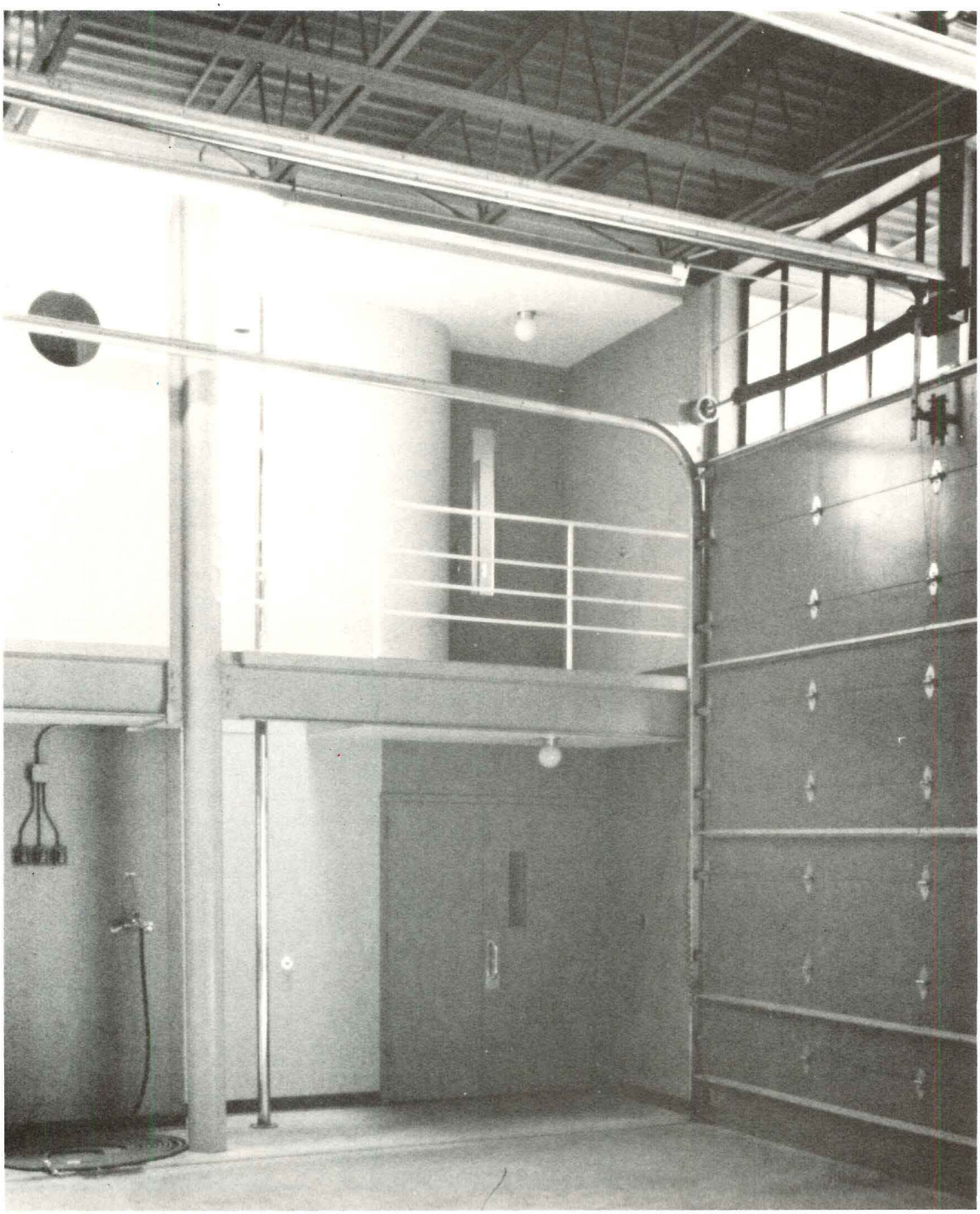


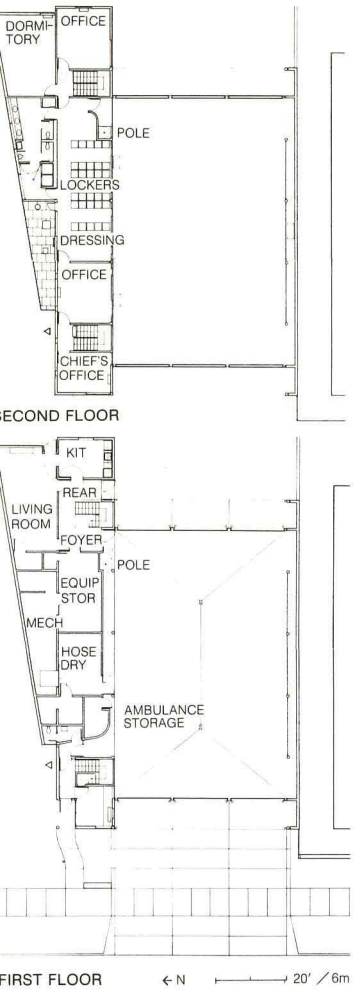
David Morton



Werner Seligmann

Inside, the same sharpness of detailing as on the outside is seen, but here through the exposed structural steel, open web joists, and metal roof deck.





Sanctuary addition
Euclid, Oh

Inviting light

A sanctuary addition to an older church respects its neighborhood and makes all who pass it feel welcome.

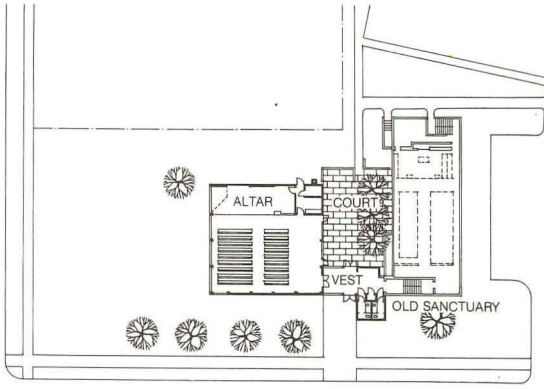
The problem for the Lake Shore Christian Church in Euclid, Oh, was not complicated, and one of the most admirable qualities of the solution is that it is not either. The restraint that architects William A. Blunden and Robert A. Barclay have shown in dealing with a building type that is often wrought to the point of hysteria is laudable; and this point was confirmed last year when the state AIA gave the building an honor award.

If the building's only merit were to be found in its restraint, however, that alone would not make it worthy of much attention. In designing this 3600-sq-ft addition to a preexisting building of about the same size, the architects have developed a handsome form that is responsive to more than just its main function as a secondary, 175-seat sanctuary for the congregation.

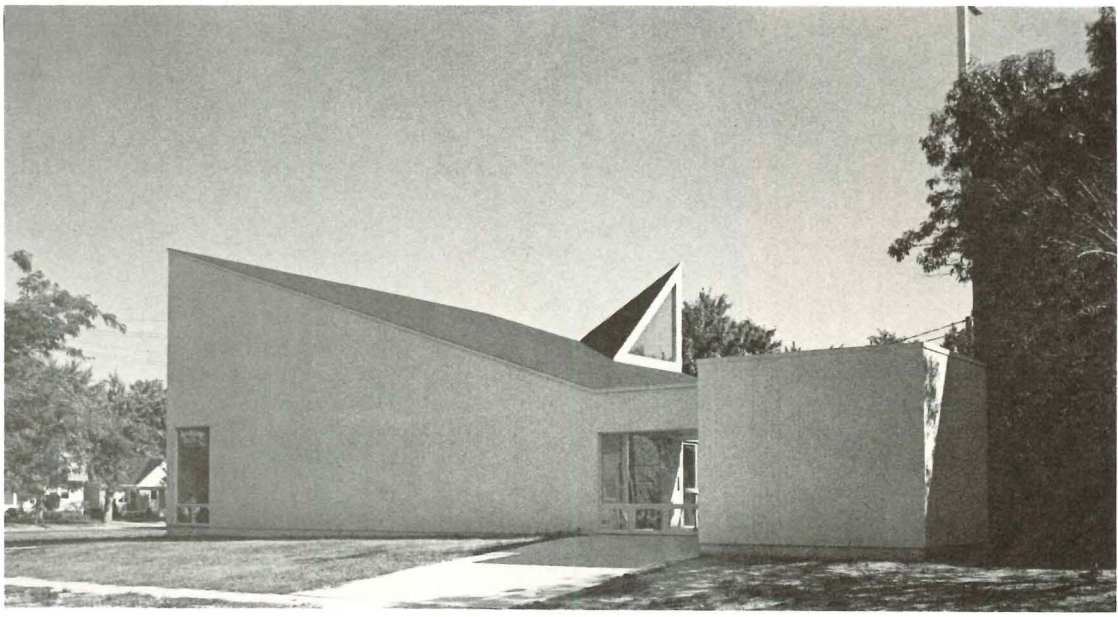
Instead of simply attaching the new form to the old, the architects devised a vestibule that serves both sanctuaries and connects them to each other. This entry space has been made into a long, narrow shape that not only connects the two parts of the church at the front, but separates them toward the rear to form a courtyard—or cloister—that is used for services and other functions in good weather. Both the new addition and the courtyard, moreover, are at grade level, thus resolving a major access problem for the many elderly members of the congregation.

Unlike the older structure, which is a somewhat boxy form of red brick that relates to little around it, the new wood-frame, white-cedar-clad addition has been designed with a simple sloped roof to reflect a common building form found in the residential neighborhood around it.

If the new building is restrained and simple on the exterior, that same attitude gives it an air of calm and serenity in the interior. There, the all-white enclosure is accented only by the rust-colored carpeting and the light, natural woods of the pews and choir chairs. The most—in fact the only—dramatic elements in the space are the large, concave window at the northeast corner of the building and the pyramidal skylight over the east end of the building. Together, these flood the altar with natural light. The large window, however, also serves a symbolic function. It exposes the altar and choir to public view and in so doing becomes a gesture of invitation. [David Morton]



FLOOR PLAN ←N 10′ / 3m



Data

Project: *sanctuary addition, Lake Shore Christian Church, Euclid, Oh.*
Architects: *William A. Blunden, Robert A. Barclay Associates.*
Site: *in a suburban neighborhood, 20,000 sq ft of flat land with trees at western edge.*
Program: *3600-sq-ft addition to existing church, to provide new sanctuary seating 175 and new entry vestibule serving both old and new parts of the church.*
Structure: *concrete foundation, laminated wood columns and beams with wood roof joists, plywood sheathing, wood studs.*
Major materials: *tongue-and-grooved vertical cedar siding, painted gypsum board.*
Mechanical system: *gas-fired forced-air furnaces, exterior pad-mounted electric air conditioning.*
Consultants: *Chacos & Associates, structural; James W. Wickert, mechanical; Eichmuller Associates, electrical.*
General contractor: *the church, coordinated by a member.*
Client: *Lake Shore Christian Church.*
Cost: *$162,917; $45.25/sq ft.*

new sanctuary addition to the ake Shore Christian Church in uclid, Oh, places the altar bove) at the east end of the uilding under a pyramidal light onitor (below, left). The onitor and a large window at e northeast corner illuminate e altar with natural light. A ew vestibule (plan) joins the old nd new parts of the building.



Knoll makes its move

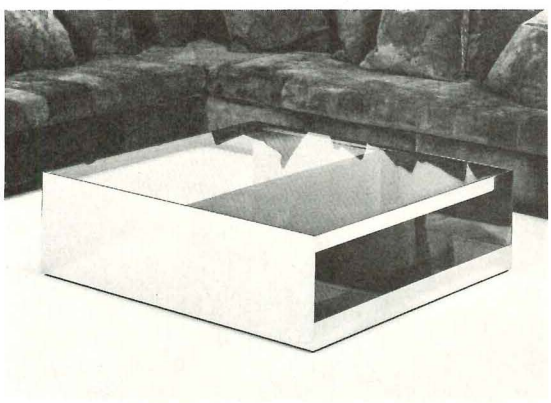
Knoll International is suddenly not so International Style any more and, say its new owners, the recently opened showrooms (reviewed on following pages) are only the beginning.



4

The first new furniture: low rolling table (1), high rolling table (2), and office/dining table (3) by Joe D'Urso. (4) General office seating by Richard Sapper for Knoll Europe. (5) Modular desk and credenza by Bruce Hannah. (6) Articulated chair by Niels Diffrient. (7) Integrated machine station by Otto Zapf.

Facing page: Los Angeles architect Coy Howard's temporary Knoll installation for the Pacific Design Center's Westweek, based on its theme "Women in Design." Bronzed household appliances are placed under furniture designed by women. Bronzed fabric cascades down steps, out of the fabric wall and visually through the front window. Interlaced are pieces of actual fabric designed by women. Photo-etched copper panels of the featured women (Florence Knoll, Gae Aulenti, Cini Boeri, Non Utsumi) hang on the wall. The transformation of form was intended as a metaphor for the transformation of women's roles.



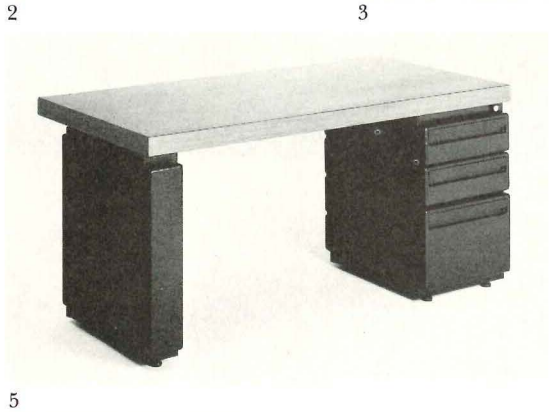
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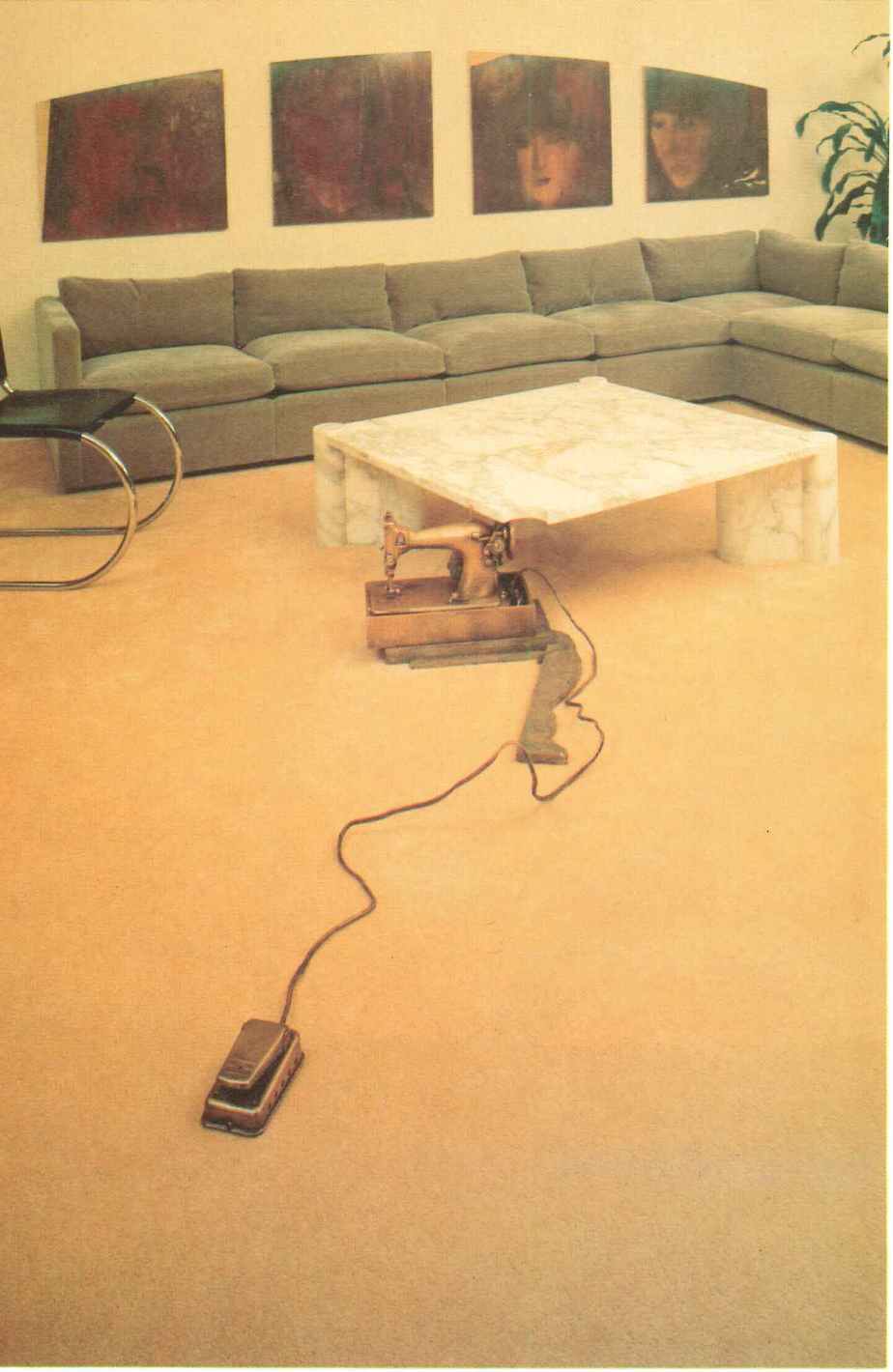
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It was among the "don't miss" events of th New York season. Invitations—numbere and signed Robert Venturi silkscreens—wer restricted, but people were still packed in lik sardines. Furniture showrooms open all th time, but this one was designed by Ventur Rauch & Scott Brown, a firm that is pract cally synonymous with the word iconoclasm And it was designed for Knoll Internationa a company that is just as synonymous with th word establishment. It was clear, among th raised glasses and up-to-date gossip, tha many of the architects and designers though that this legendary believer in Mies an Breuer and Saarinen had, wittingly or no opened a Pandora's box.

What is Knoll up to? Behind the showroo is actually a long-range plan that began whe two ex-Wall Street entrepreneurs bought th long-established company in late 1977. Th New York showroom and another in Bosto are only a foreshadowing. The real emphas is on new products. There are 45 majo products in development, by 41 different a chitects and designers, many of whom hav never designed furniture before. The li reads like a Who's Who of the avan garde—Richard Meier, Stanley Tigerma Coy Howard, Robert Stern, Richard Roger Gwathmey/Siegel, Robert Venturi, Josep D'Urso—while also including establishe product designers such as Richard Schult Ettore Sottsass, Jr., and Nob and Non U sumi.

The idea is to make Knoll into a pioneerin design firm again, to reestablish its traditio of architects as designers, and to revitalize stagnating company. The major figures in th new product drive are Jeffrey Osborne, th 35-year-old vice president of design who, as veteran of Knoll since college, pushed fo many of these designers under the old re gime; and Nan Swid, director of design coo dination who works closely with the de signers.

As a rule, Knoll approaches a would-be d signer with a specific project. The name come from magazines, recommendations, o previous work. The showroom architec were, in fact, chosen from among those a ready signed on for furniture design. Th longest-running relationship is with Gwath mey/Siegel, who designed a vacation hous for co-owner Marshall Kogan in 1972 and a apartment for the Swids in 1976 (co-owne Stephen Swid and design coordinator Na Swid are husband and wife). Knoll sees th





products in two categories, systems—neutral, less detailed—and objects.

Knoll is not particularly convinced by the stunned reactions it has received from some quarters. Says Stephen Swid: "When we first bought Knoll, we thought it was an International Style company because everyone told us so. But what does Bertoia have to do with Mies or with Saarinen's curves and sweetness? Knoll lost its place on the leading edge ten years ago and we are committed to getting it back." As for which leading edge it is aiming for, the answer is any and all. "We have the strength to encompass breadth," says Osborne. "The whole world is experimenting now, not so much with new materials, but with new ideas."

The new owners are young—Swid is 39, Kogan 42. Their background is in investment funds and brokerage houses. In 1973, they became partners to purchase companies themselves. In July, 1974, they bought General Felt Industries, from whose Charles Pfister-designed offices they operate. In 1977, after two years of trying, they bought Knoll. In 1978, they started a couturier firm, Michaele Vollbracht, that has already made the cover of Women's Wear Daily. "We want only companies with lifestyle implications," says Kogan. "We don't want a nuts-and-bolts company." As for this gravitation to the design field, Swid neglects to mention his and Nan's extensive art collection but adds: "We were the best-dressed guys on Wall Street."

On the more practical side, they describe Knoll as a good investment because it was undermanaged, with little capital invested in machinery, but with a terrific reputation. Increasing its earnings has meant several dramatic steps. Half the product line was eliminated. Office dealer accounts were welcomed. Both meant a more predictable factory load, and the result has been, say the owners, a halving of delivery time and tripling of orders.

Knoll's 30 foreign licensees were cut to 12, based on which ones would invest capital. Again, they say, the income from this part of the business is three times higher. A new sales force now calls on interior designers and large potential clients. Showroom staff has been instructed to welcome nontrade passersby. Though they deny Knoll is aiming more at the residential market than before, they admit a third of the new products are applicable to homes, and one is a rocking chair. Also, because of the devalued dollar, export to Europe is a possible avenue, and Knoll's market in Europe has traditionally been as solidly residential as its market in the U.S. is contract.

Already profitability and sales are up substantially, and plans are to double U.S. manufacturing facilities in the next few years. Knoll has bought a building in Soho for product development so designers who prefer can avoid time at the plant in East Greenville, Pa. Knoll seconds will also be available there. The next front is Europe. Gilles de Bure is advisor on designers there, and new showrooms are scheduled for Hamburg and Amsterdam. [Nory Miller]

Knoll showroom, New York

The New York showroom

A two-step move involving a new showroom design by Venturi, Rauch & Scott Brown and now a temporary installation by Joseph D'Urso has focused new attention on Knoll.

Photos: Norman McGrath

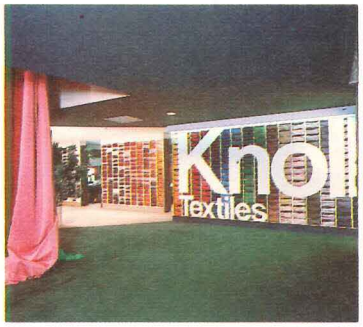


ke most works by Venturi, Rauch & Scott own, the Knoll New York showroom is ntroversial. But not controversial for being trageous. It is controversial for being *un*-trageous.

Knoll had moved to this 33,000-gross-sq-ft ace on Madison Avenue and 61st Street be-use of a tempting leasing arrangement that ubled their previous area and included ming the building after Knoll. Venturi, o is designing furniture for Knoll's new e (p. 72), was charged with the task of con-ting some 22,600 sq ft on two floors into owrooms.

Because of a limited budget of $600,000 d a low ceiling height (11 ft floor to floor, 8 3 in. with the dropped ceiling), the space ntained some built-in challenges. And let's t forget the challenge of working for Knoll. spite their reputation for up-to-date Amer-n and Italian designs and the cachet of Gae lenti executing the last New York show-om in 1970, Knoll's image had stayed very idly aligned with the "good design" Mod-n warhorses of the early days—the Mies, rtoia, Saarinen, and Breuer furniture.

Venturi, Rauch & Scott Brown designed conference room (opposite), reception and fabric display (below), and main showroom (bottom).



Now Knoll

Since Knoll had been taken over by new owners, it was planning for future product lines with a slew of much-published young architects and designers. But the first visible announcement of its recharged identity took the form of a new showroom, *without* the new furniture. *With* the warhorses. This was not easy. A dramatic architectural statement always runs the risk of being a distraction to presenting and selling the designed objects. In this case, however, a completely neutral background would mean that all attention would be focused on the *existing* furniture.

So Venturi tried to do a little of both—to create some pizzazz amidst a low-key environment. A stepped and bowed green-carpeted platform in the reception area provides a setting for the display of objects as isolated artifacts. At some remove, a vertical, two-story shaft through which plush Knoll fabrics grandly spill marks the entrance to the showroom.

In contrast to these dramatic devices used in the lobby, Venturi wanted the furniture in the showroom to appear in its normal con-



text. Just not *too* normal. Piers 19 ft on center were wrapped in a lath-on-plaster cocoon to form fat, Egyptoid columns replete with lotus capitals. Spot lighting is mounted in black barrel-vault-like recesses arranged in Greek cross formations over furniture groupings. The edges of the room, facing busy, shadowy streets, are emphasized by rows of vertical wood slats, wavy in profile, that transmit a shimmering daylight to the interior. Walls and columns are trimly tied together with the cornice-height border of black paint.

Between the idea and execution

Venturi carefully selected furniture by style and color much the way one plants a garden of flowers. It should work. But for most observers viewing the showroom when it opened, the bloom had gone off the flowers. The pieces were too well known. The slightly quirky setting focused just a little too much attention on the familiar items, without causing them to be seen in a new light. The excitement surrounding the modern furniture back when it *was* revolutionary had not been re-created, the way an exaggerated version of a 1950s commercial interior might have done. On top of that, little things gnawed: like painting the square piers black above the lotus capitals and inserting fluorescent cove lighting around the lip. The device does dissolve the connection between pier and ceiling, as intended. But it also focuses attention on that low, low ceiling—and makes the furniture look more uniform.

The conference room provided the statement more in keeping with expectations—and appropriately controversial. Its silk-velvet-lined walls and matching upholstery set off the Brno chairs and the glass and stainless steel Pfister-designed table to dramatic effect. The ensemble, superb in an overdone Modern sumptuousness, comes off in part because one never associates "glam"-type kitsch with Knoll. When one links kitsch with Venturi, one acknowledges it is a Knowing Kitsch. The luminous ceiling, however, is another matter. Venturi took the backlit ceiling, of the type developed in Eero Saarinen's office in the 1950s (when Venturi was there), and adapted a Robert Adam ceiling design to it, using a silk-screen process on the acrylic sheet. But the light pastel, low-relief, linear tracery of an Adam ceiling is radically transmogrified by flattening out the ornament, outlining the motifs in thick black cloisonné, and lighting the pattern from behind. The essence of the original has been lost without something else of substance being substituted—much like unknowing kitsch.

D'Urso's adaptation to Venturi

Joe D'Urso was the next designer to contribute to reforming Knoll's image, with a furniture line first shown there this May. If Venturi's showroom architecture faltered in trying to create a strong interaction with the existing Knoll furniture, this is not at all the case with D'Urso's furniture vis-à-vis Venturi's architecture.

To its credit, Knoll took yet another chance: The company decided D'Urso could temporarily dispossess the "trad" stuff on the main selling floor and fill it completely with his own new line. Less vanguard than one expects from the industrial-type designs D'Urso had used in the past (P/A, Sept. 1977, p. 60; Sept. 1979, p. 144), D'Urso's furniture design adheres remarkably to the Knoll imprint. Yet it advances the classic Modern look with an even sleeker, more minimal design. Three basic types of pieces—a sofa, a low square coffee table, and a high-legged oval dining/conference table—are varied through minor changes in sizes, shapes, and sleek materials like polished cotton, stainless steel, or granite.

Yet it is D'Urso's installation of the collection that is so striking. He has made Venturi's architecture stand out effectively without detracting from his own display. First D'Urso removed the clutter of chairs from the reception area platform and replaced it with a few of his own shiny steel coffee tables. The coffee tables become art objects—Judd-like minimal boxes on hidden casters.

In the showroom, D'Urso turned off the fluorescent cove lights around the lotus capitals. Now, with a less obvious ceiling, the space doesn't seem so low. Because of the sparseness of the furniture groupings and the low-slung strong horizontal lines of D'Urso's own furniture, a sense of flowing space characteristic of Modern Architecture is introduced. It *is* a bit ironic that the second designer makes the original designer's space work.

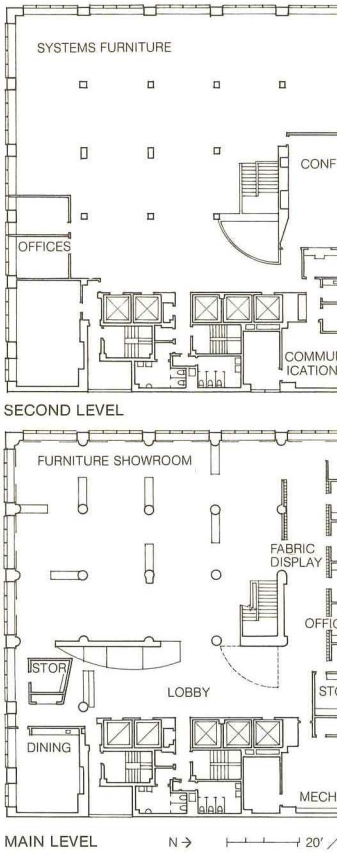
Now Venturi's sculptural columns participate in that space, operating as three-dimensional elements around which it moves. Progressing continuously from the lobby in accordance with the movement of the peripatetic observer, the space is bound by the very flat, two-dimensional backdrop of fencing along the window walls. All elements seem in concert: even D'Urso's table tops echo the width of Venturi's black border.

Dangling questions

Venturi's solution, as it turns out, is actually extraordinary, but looked too ordinary with the existing furniture line, its crowded arrangement, and the lighting. The traditional collection itself is not really to blame. Nor can one blame Venturi for the concept—which is interesting as an idea—or fault him for not being as ingenious with furniture installation as he is with his concepts. The issues here go beyond the individual effort. They revolve around showroom design itself, and the relationship between architecture and the design object, between the container and the contained, between attitudes toward familiar and unfamiliar designs, and finally between display and merchandising. So far these questions—in the entire field of architecture and design—have not been resolved. One battleground is now in the showrooms. And Knoll is providing a theater of action where serious exploration is taking place.

[Suzanne Stephens]

Joseph D'Urso installed his own collection for Knoll in the reception area (right) and main showroom (below).



Data

Project: *Knoll Internation Showroom, New York.*

Architects: *Venturi, Rauch Scott-Brown. Robert Ventu partner in charge; Stanfo Hughes, John Chase, proje managers; Steve Izenour, Dav Marohn, Mark Hewitt, a Missy Maxwell, design team.*

Program: *22,600 sq ft on se ond and third floors of spec offi building. Reception, furnitur and textiles showroom on seco floor; office system showroom, i corporating staff work statio and conference room, on third.*

Mechanical: *existing forc air system, perimeter convecti units.*

Consultants: *George Izenou lighting; Flack & Kurtz, m chanical; Leichtman & Linc structural.*

Costs: *$600,000; about $2 sq ft.*

Bernard Askienazy

Peter Vitale

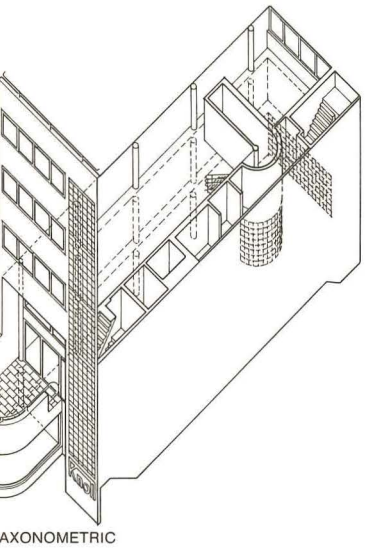


The Boston showroom

Gwathmey/Siegel's showroom, as both object on the street and environment for changing displays of furniture, is a study in some of the difficulties of contextual design.



Replacing a burned-out hull on fashionable Newbury Street in Boston's Back Bay, the six-story building (right) is divided into three floors of showroom (staircase, left) and three floors of rental office space.



AXONOMETRIC

Neither so controversial nor so ambitious a design as Venturi's, the Boston showroom opened several months later with a ceremonial ribbon-cutting by the Mayor, to general approval. Well within the civilized sensualities of the Gwathmey/Siegel idiom on the interior, the showroom caused raised eyebrows predominantly because of its façade. It was a new problem for the firm, a piece of urban infill for an established and popular area—in this case Back Bay, Boston.

Instead of the usual private retreat within a mart complex or anonymous highrise, Knoll had bought a site among the elegant shops and Victorian architecture of Boston's Newbury Street. Gwathmey/Siegel's task was to set something comfortably within it. Their design takes the fullest advantage of the street and its advertising potential to curious passersby by turning half the base into a kind of glassed-in thrust stage, a protruding storefront window, full of furniture. Thus a potential clash between wholesale and neighboring retail was averted.

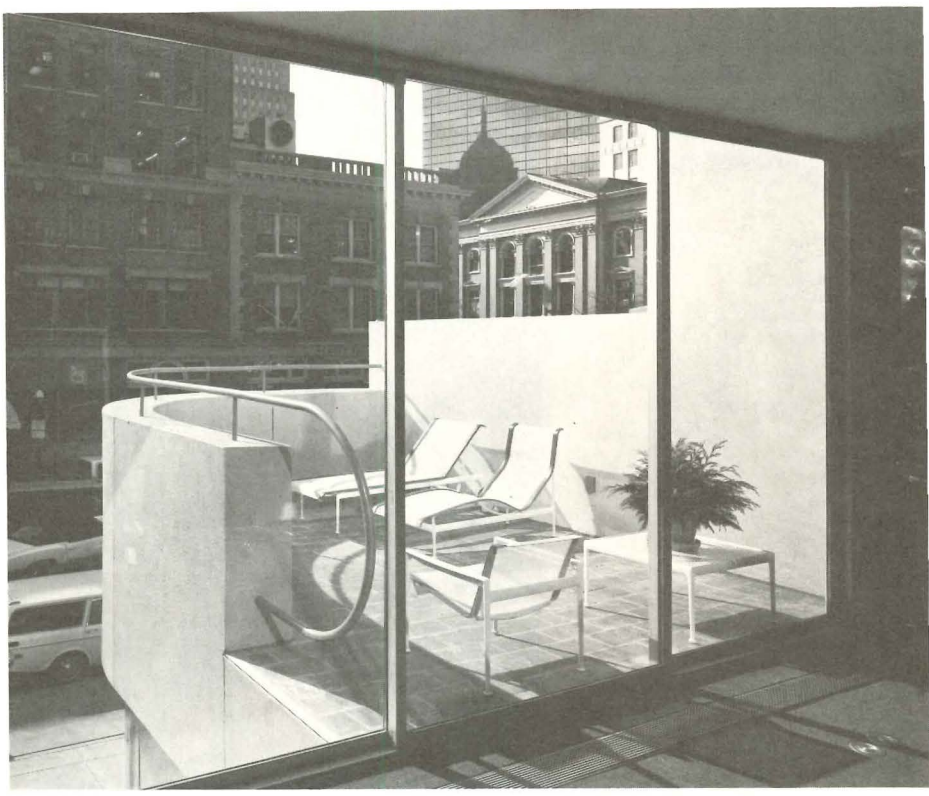
As consciously intended, if less successful, was the attempt at visual integration with the architecture of the area. Scale and massing were organized to this end. The building was held to six stories, comparable to others along the street. Its façade is flush with building lines to either side, while its stage window is pulled out, even with some storefronts.

Expression of function was then combined with stylistic allusion. The firestair is pulled to one side and faced in glass block like, says Gwathmey, "a big supergraphic." Knoll's space, the first three levels, is made into "an episode within a bigger framework" by being recessed. Interacting sculpturally are a still

Knoll showroom, Boston







The ground floor exhibits individual furniture pieces and fabrics (facing page), while the upper showroom levels are devoted to systems (top left, second-floor display and mural; top right, view of second floor from stair). Above the stage window is a railed balcony (above) that can be used to show outdoor furniture.

further recessed doorway and the projecting stage window. One column is exposed to express the structure and the role of columns inside. The top three stories (rental floors) "act as cornice" for Knoll's building within a building. Nonetheless there is another cornice effect at the real top.

The most prominent stylistic motif in the neighborhood is the bay window, and Gwathmey/Siegel's building makes one gesture after another towards it. The bay of glass block is one. The stage window is another. At the upper floors, there is an optical illusion induced by bracketing fully glazed windows with operable ones, making each group seem to bay.

In short, it is too much. Not that these things are too much to ask of a narrow façade, but here every piece seems to be dancing to a different tune. Complicating the problem is an unexpected—from this firm—awkwardness of proportion. One suspects that the Rationalist vocabulary which works well on an open field or in a gutted shell is without sufficient choices to handle the empirical problem of lining up to a variety of façades. The stage window, for instance, is a Classic form simply stretched to fit, a good idea resulting in a bulbous extrusion.

On the showroom interior, most of the effort is in the long, uninterrupted side wall leading into each room and the stairwell leading from one to another. The vocabulary is much the same as the firm has been working with in recent years: mirror, glass block, polychrome, ship's railing, round columns. . . . The muted purples, greens, browns, flesh tones, and grays are some of the subtlest and most successfully blended the firm has produced, ordered, as always, plane by plane.

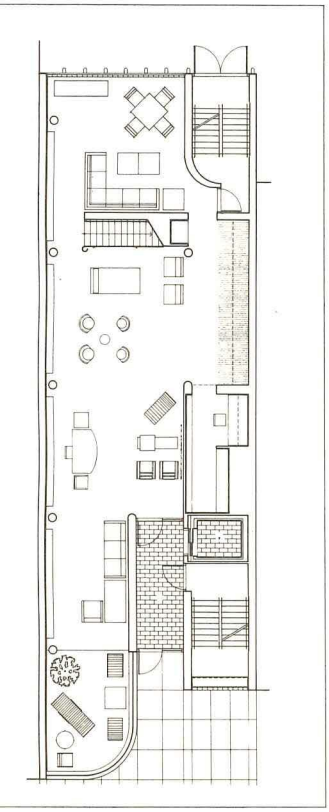
On the first level, the long wall becomes the sales rack for Knoll fabrics. Mirror above and below lends sparkle. A row of flesh-colored columns and a layer of track lighting add a certain pace and activity.

Each layer of each section of the staircase is disengaged with a slight alteration of color. Railing spins around each turn and up the inclines. Glass block wraps the knuckle at the landing. Two strips of blue neon trace the path on the ceiling. Though blaringly disco in photographs, they actually have relatively little visual impact.

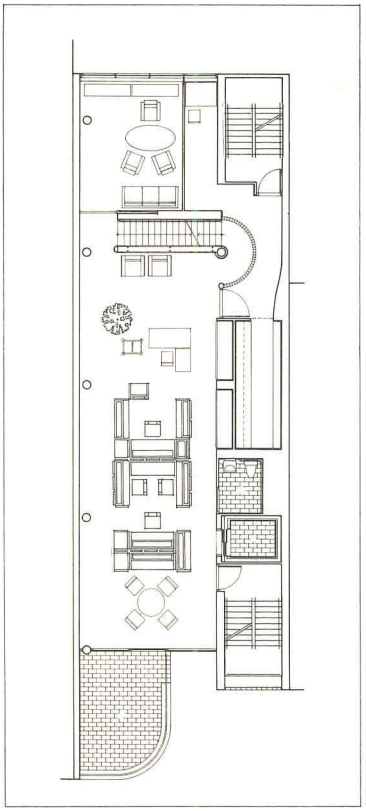
The narrow brownstone scale and refined but distinct character of the envelope set off the furniture on the first floor to advantage. Upstairs, where floors two and three display systems, it is different. Here anything but a neutral envelope is distracting because the desks and partitions intended for the wide-open spaces of 30-ft bay skyscrapers are simply too big for this "townhouse." Like the first floor they have subtle tones, flesh-colored columns, and track lighting. But instead of fabric displays on their long walls, there are textury photomurals.

Behind and to one side of the showrooms are offices. Bits of mirror add illusion and glass block is used to let light in. Next to a tiny kitchen is one perfect gray and black booth as if from a chic New York retaurant, like a quotation from Shezan. The detail is Gwathmey/Siegel at its best, without—here humorously—the constraints of context.
[Nory Miller]

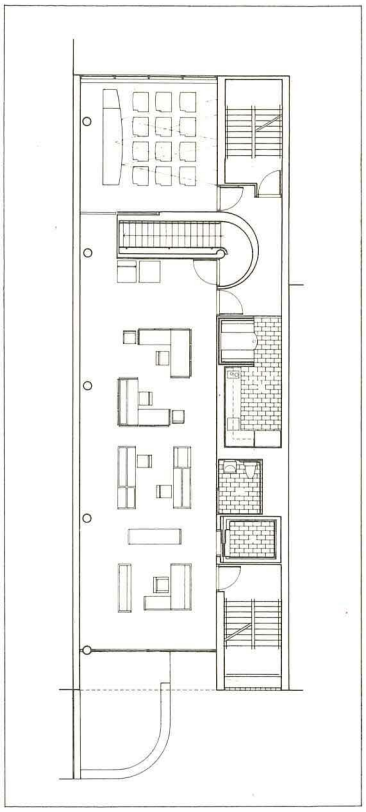




ST FLOOR PLAN



SECOND FLOOR PLAN



THIRD FLOOR PLAN N 10'/3m

Data

Project: *Knoll International showroom and offices, Boston.*

Architect: *Gwathmey/Siegel & Associates, New York City. Jacob Alspector, associate in charge.*

Program: *six-story infill on fashionable Victorian shopping street. Three lower floors, 6000 sq ft, are showroom with cellar storage; remaining floors, 9000 sq ft, are rental offices.*

Major materials: *concrete exterior walls, gypsum board interior; mirror, glass block.*

Consultants: *Thomas A. Polise, electro/mechanical; Souza and True, structural; Elliott Kaufman, photomurals.*

General contractor: *Bond Brothers.*

Costs: *$1.2 million, including interiors but not fees.*

Photography: *Steve Rosenthal.*

Music Center
Utrecht, Holland

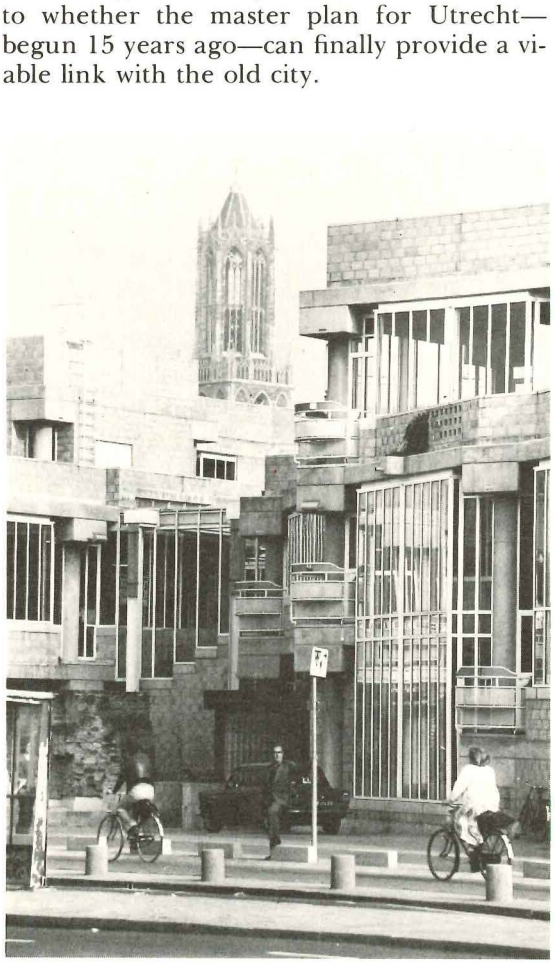
Hertzberger's variations

Holland's Herman Hertzberger has recently completed a major concert hall noted for its contextualism.

Brian Brace Taylor

It goes without saying, perhaps, that no single building (or even necessarily a group of several buildings) can turn an urban renewal operation into a success. The economic, social, and cultural mechanisms that make a city function are indeed so complex that they seem, so far, to have eluded the capacities of architects and planners wishing to reconstitute and revitalize aging urban fabrics. Utrecht, Holland, is a classic case of horrific Modern construction (in the form of the Hoog Catharijne shopping complex) juxtaposed against a historic center of urban life.

As of last year, Utrecht has a new building, the Musiekcentrum Vredenburg, squeezed onto a leftover site between the old and the more recent, between the dispersed but integrated economic and cultural life of the ancient city and the concentrated commercial activities of the megastructure surrounding the train station. The Music Center, by architect Herman Hertzberger of Amsterdam, is, in fact, a "package of buildings" (as he likes to refer to it), which may make the difference as to whether the master plan for Utrecht—begun 15 years ago—can finally provide a viable link with the old city.



The vertical patterns of the narrow sash and the stepped wall sections relate the building formally to older architecture of the city.

The irregularly shaped building (opposite) is sited on a cleared area near a shopping center and railroad station. Its plan and irregular massing conform well to the odd shape of the parcel.

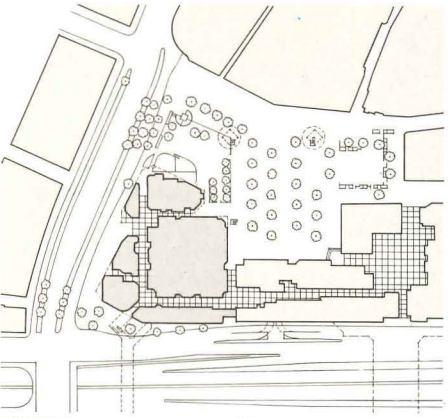
Hertzberger fought a long battle for t Music Center to be located on this pivotal sit Some citizens preferred a typically isolate and monumental cultural facility somewhe on the periphery. Site and interpretation the program, however, go together, as d (fortunately!) the basic concept shared by t architect and the future director of the Mus Center, Peter Smits. This concept involved building that would be *more* than simply a auditorium for symphonic concerts; it wou be designed and equipped to accommoda theatrical, operatic, and informal produ tions, as well as large meetings and even ci cuses! Its amphitheaterlike seating is i tended to provide greater visual contact wi the performers as well as to offer good acou tical qualities.

Urban implications

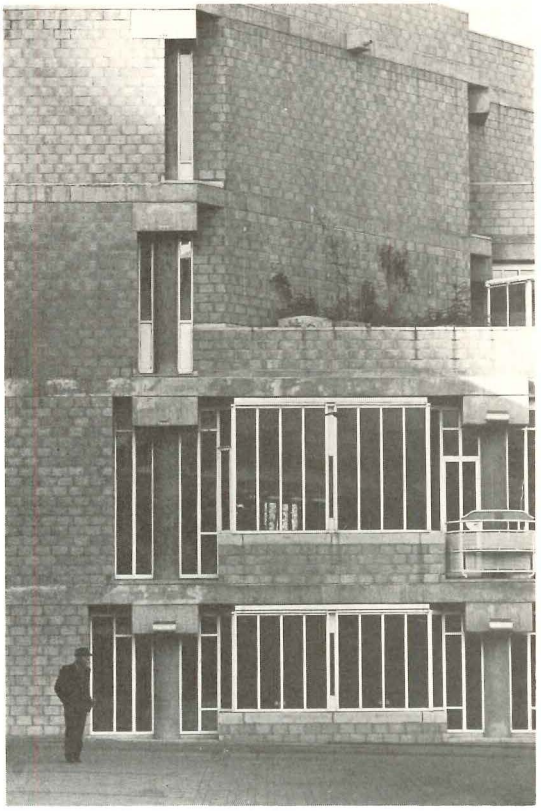
The vision of what a successful cultural cent ought to entail, however, went even furthe The 1500-seat concert hall is bordered on tw sides by covered, multilevel passageways on which open shops, several offices, a caf restaurant, and an information center run the city. These activities were include to provide incentives for constant daytim as well as evening, use of the buildin The passageways, inspired by 19th-Centu French commercial *passages* are conceived a continuation of the old city's streets and li up on the opposite side of the Music Cent with the Hoog Catharijne shopping cente Articulation of these public spaces into co ners for sitting, alcoves, exhibition areas, et allows opportunities for social intercourse for individual retreat from the crowds.

Yet the principal quality of the Cent from which its ultimate humanness a peculiar Dutchness derive, is its *accessibility* both physically and visually, whether fro outside or while within its confines. Asi from numerous entrances on the street a plaza, there are windows of every imaginab dimension, shape, and mode of glazi (transparent glass, translucent glass bric etc.). One is constantly aware of moveme of activity, of one's location vis-à-vis t out-of-doors, if only through fragmenta

Brian Brace Taylor is an American architectural historian and a former editor of *Architecture d'Aujourd'hui.*



ITE PLAN N 100' 30m





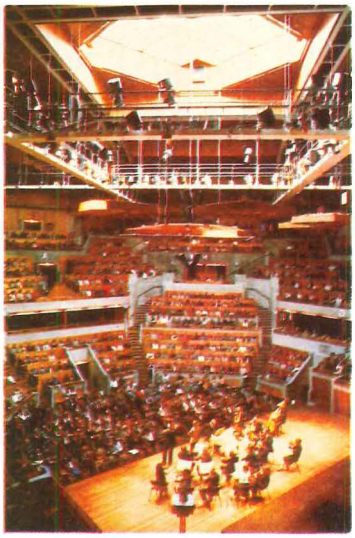


The handling of a number of details and elements (left) recalls early Modern predecessors: Chareau, Mackintosh, Horta, and Rietveld.

The materials outside and inside are the same (left), with columns, column capitals, white painted sash, and pipe fencing with mesh punctuating the rhythms established by the masonry block, glass block, and pierced block walls. The columns, recurring on a gri of six meters, demarcate areas and allow the architect much freedom to fill in the grid and to shape individual spaces according to changes in program. The round columns modulate space subtly; their square capitals become an "overstatement" that conforms to construction requirements: they allow different ceiling heights of the different parts of the building to be unified. The column positioning creates a recurring motif, always recognizable but changing according to the context.

Interior glass-covered arcades, the same scale as alleys in the town's center, surround the musi hall. Shops, restaurants, and offices line the arcade and link directly to the shopping center, Hoog Catharijne. The porous quality of the building is underscored as one passes through the layers of openings leading from the square outside to the interior arcades, from the arcades to the music center lobby, and from the lobby directly into the seating sections. The skylights and incandescent custom lighting above th arcades give the space its definition and character. The skylights are supported by channels bracketed to column capitals, which also carry sprinkler piping and smoke detection wires.


INGANG
GROT
ZAAL

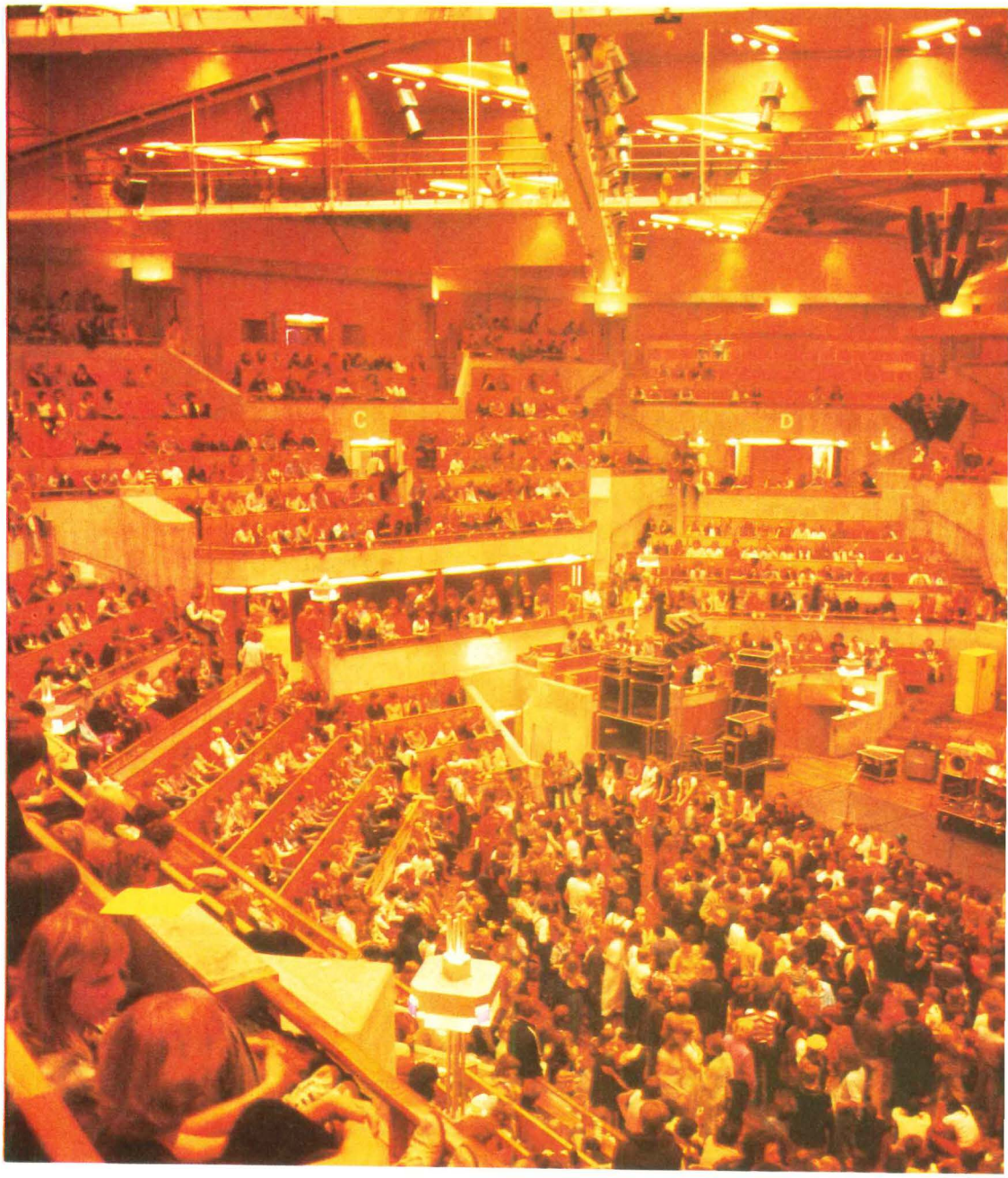




The chamfered square 1500-seat auditorium is organized around a central podium in amphitheaterlike configuration. Thus "surround-sound" acoustics and completely unobstructed sight lines are afforded concertgoers. The large dome in the roof enables daytime concerts to be held in natural light. The artificial lighting is operated from platforms built on the exposed beams crossing the hall.

Seating (opposite) abounds on stone plinths, wooden benches, and tables, in corners with cushions and stools. Tapestries and wood finishes line much of the walls to soften the predominance of "Brutalist" materials.

A ground-floor café near a moat can be viewed from the small balconies built around the freestanding columns.



mpses. It is all part of what Hertzberger ms the sought-after qualities of "protection d outlook" for the user-participant.

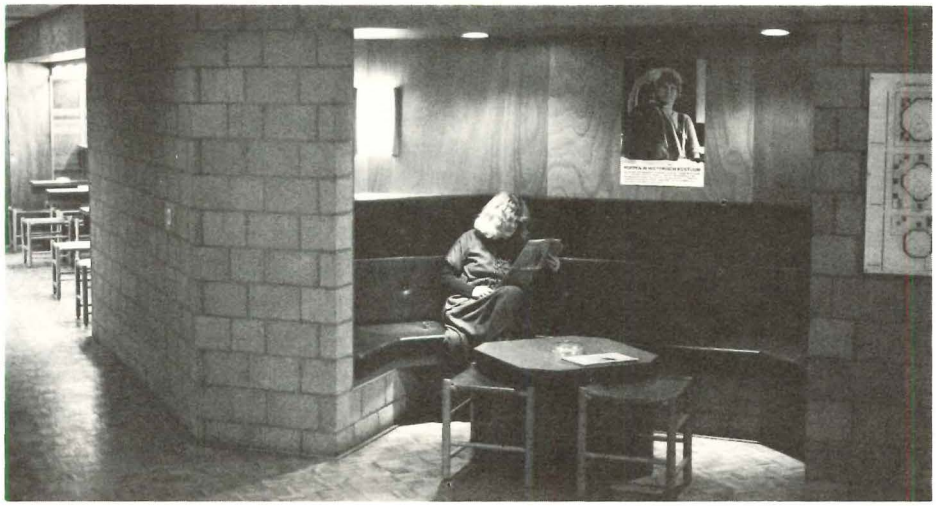
tch attitudes

e Dutch, as anyone who has visited Hol- d has noticed, are obsessed with keeping erything visible. Rooted, perhaps in part, in eir Protestantism—where openness to ob- vation contributes to moral rectitude—this ious national trait as it applies to inhabited aces is also reflected in Dutch painting: one ed only think of the countless scenes of mestic interiors by 17th-Century painters e Pieter de Hooch and Jan Vermeer. The ncern with light was a significant aspect, but quently one is confronted with a succes- n of rooms in the background, seen ough open doors or windows.

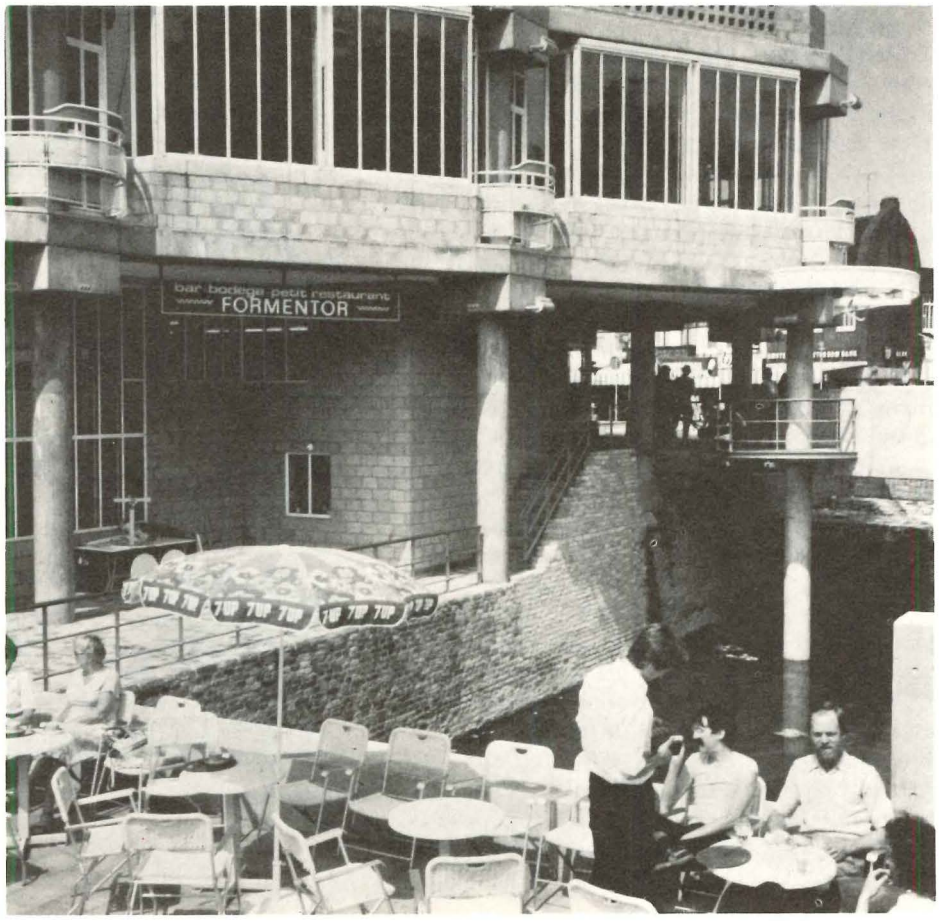
The parallelism invoked here is by no eans intended to suggest that Hertzberger an architect consciously tried to incorpo- e such traditional modes of perception in building, nor even to design with a paint- y (i.e., pictorial) vocabulary—as one might Le Corbusier did in the 1920s. No, as his evious buildings such as the Central Beheer d De Drie Hoven illustrate, Hertzberger s an extremely forceful architectural lan- age that emerges from a twofold preoccu- tion: a structural system that is repetitive r economic reasons) and visually apparent r expressive potential). At the same time, t structural system should be conducive to ximizing liberty of arrangement and utiliz- spaces to suit a variety of functions.

rsonal position

ese ends are clearly not mutually exclu- e; apart from economic benefits of employ- a continuous post-and-slab structure of ncrete with cement block as infill, the ex- sed system offered the architect potential edom for an architectural expression alogous to linguistics. This preoccupation nes straight down from Aalto, Kahn, and Eyck, with the difference that Hertz- ger, dealing with vast programs such as Music Center (7740 sq m), controls the le and breaks the rigorousness of the sys- wherever he desires. The columns with pitals used throughout the Music Center handled differently according to the spa- context in which they find themselves: ng the periphery of the building on the eet, at the junction of the concert hall per, or in the passageways. Hertzberger, ing moved beyond the sort of poetico- io-anthropological approach to architec- e adopted by certain of his post-CIAM tch colleagues, is nevertheless keenly are of research going on in scientific fields directly related to his own, particularly ucturalist linguistics. And while one must nain rather skeptical of dubious claims of ect cross-fertilization, the architect himself s to ponder the role(s) he attributed to his umns within the total framework of the lding as somehow functioning as *parole* eech) within a given *langue* (language). e columns' varying heights and thick, cubi- capitals give a sense of direction, scale, and









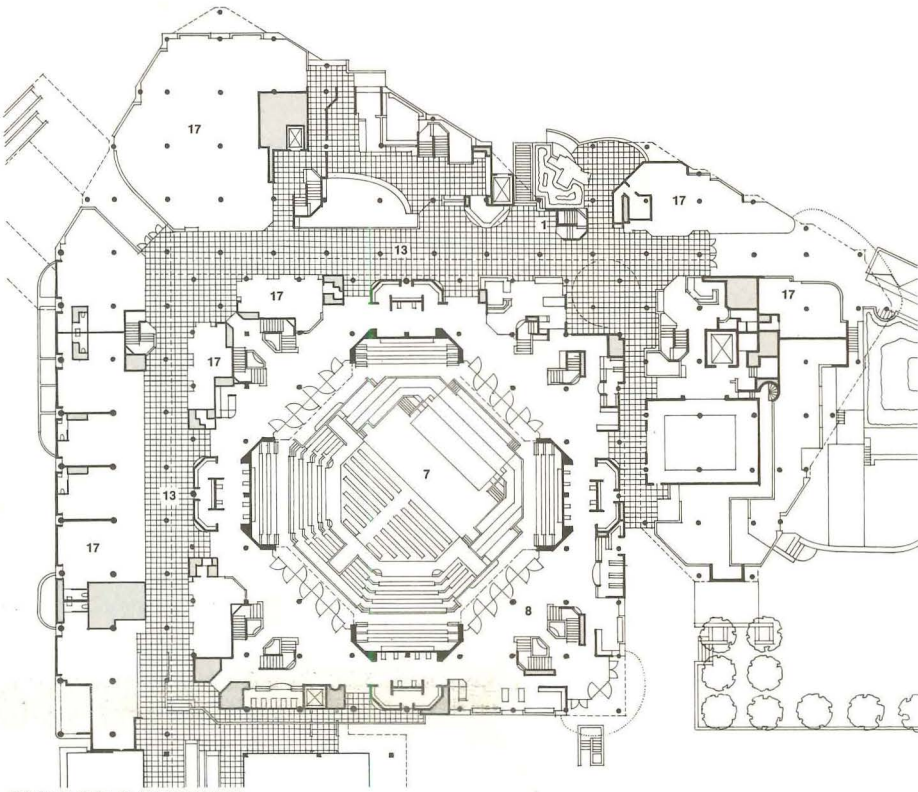


Hertzberger has retrieved several fragments and some statues from a building nearby that was demolished for the shopping center, Hoog Catharijne. While the foundations for this building were being dug, remnants of the old Vredenburg castle were uncovered, some of which Hertzberger has incorporated into the Center.

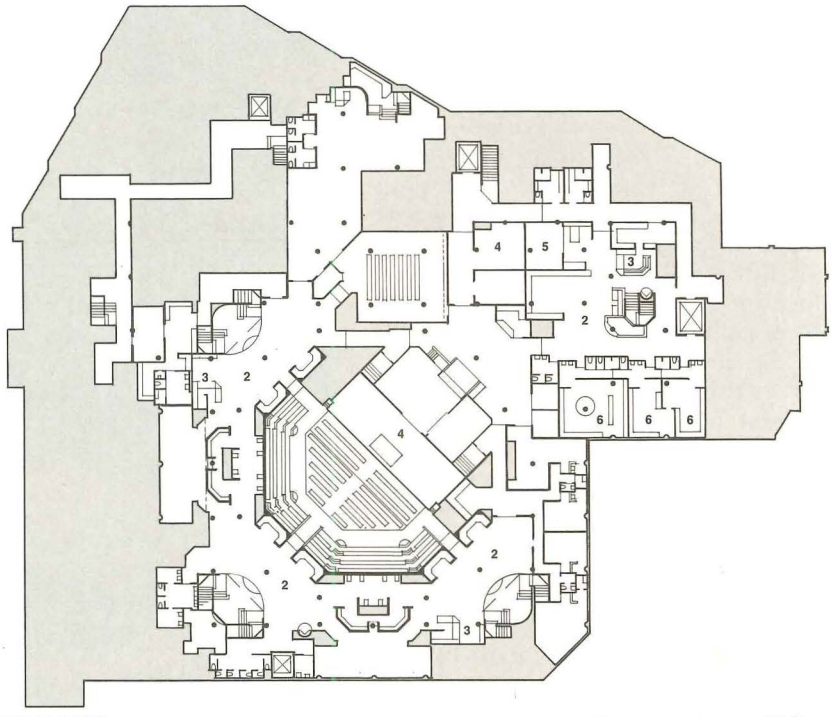
modulation to spaces. As columns they perform visually in differing fashions, according to where they are and what is beside them. In sum, they provide an ever-present, competent means for articulating interior space.

More explicit are the numerous references to the architectural language of Hertzberger's immediate predecessors in Holland and elsewhere. (And he has his own list of them, which he is humble enough to cite!) Whether it be the skylight over the concert hall evoking that of Rietveld's Schroeder House (also in Utrecht), the metal frame windows of Duiker perhaps, telephone booths inspired by the pivoting steel-and-glass doors in the *Maison de Verre* by Chareau and Bijvoet, or simply the atmosphere of the Palace Theater in London, the grateful acknowledgments by a critical, creative mind are all present—for an initiated elite, of course, to recognize if they will. And for the local citizens' collective memory, Hertzberger has included (in no way gratuitously) fragments he recovered from several well-known buildings demolished to make way for the Music Center, as well as vestiges of the old city's ramparts laid bare during site excavation.

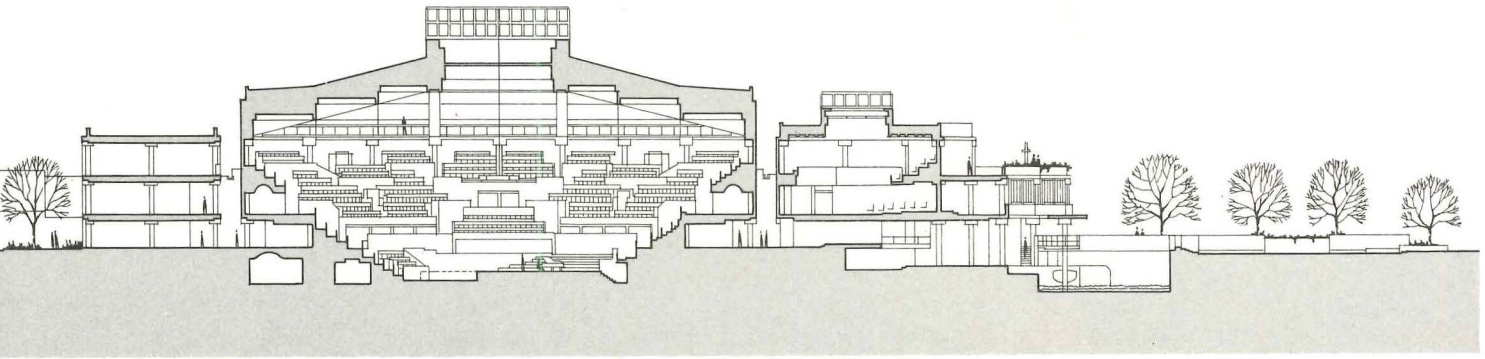
Hertzberger's new Music Center shocks some conventional tastes for its seeming lack of monumentality or for being too aggressively full of personal idiosyncrasies. Nevertheless it postulates a model for a new breed of center city cultural institutions, destined to concentrate and weave together a wealth of complementary socio-economic functions with a dynamic cultural life. Aalto timidly pointed in this direction 30 years ago with buildings such as the Culture House in Helsinki, financed by the local Communist party; unfortunately, the Finlandia Hall must be considered a regression in this respect. The Utrecht building keeps diversity and complexity of function at a balanced, humane level, precisely because those responsible for interpreting the program formulated their conception on the basis of acute and profound knowledge of Dutch bourgeois existence. The shops may not sustain the center's existence—let alone pay off its original 50-million guilder price tag. But in a society where commerce and cultural activity have traditionally been intimately associated, the right dose of materialist incentives may permit cultural activities to come out of the isolated ghettos to which they have been relegated by Modernist city planning. □



FIRST FLOOR PLAN (GROUND)



BASEMENT LEVEL



CTION

ata

oject: *Musieksentrum Vre-nburg, Utrecht, Holland.*

rchitect: *Herman Hertz-rger; project team: Wim ener, Frans Bosch Reitz, nk de Weijer, Rijk Rietveld, Schreuder, Dolf Floors; Wim dzelmans, team leader.*

te: *former site for the 16th-ntury Vredenburg castle built Charles V in an urban re-wal area of 61 acres, called oog Catharijne, that includes a opping center and railway sta-n, in a town of 270,000 utheast of Amsterdam.*

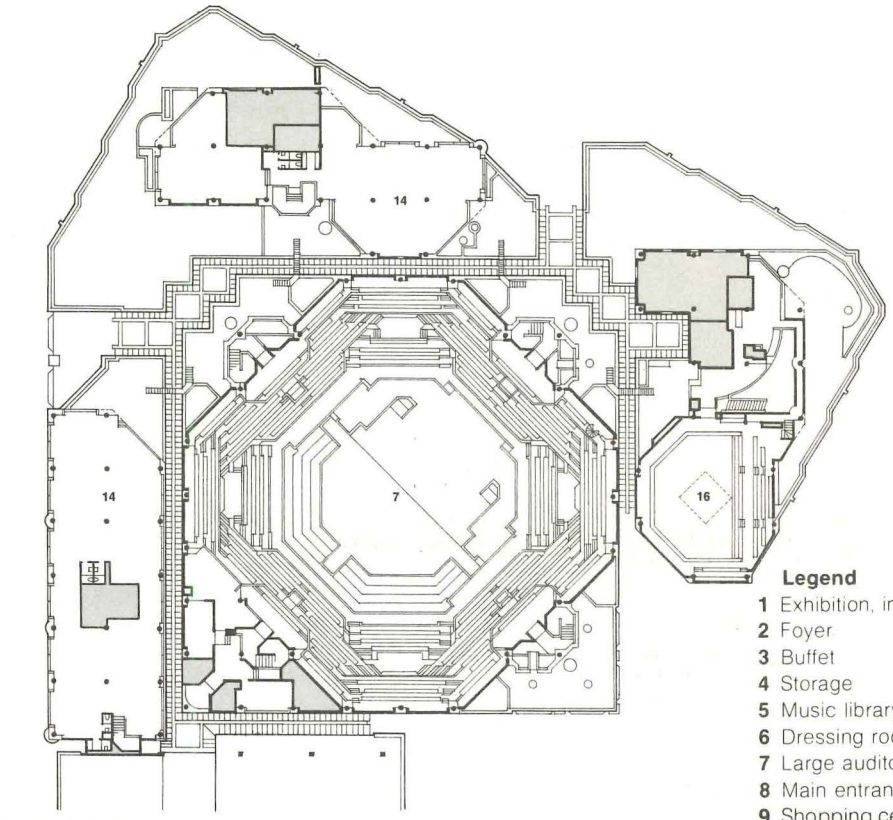
rogram: *to create a 10,695-m complex tying the various tions of the city together, pro-ding a 1500-seat concert hall, 350-seat recital hall, plus ops, restaurants, and other pport services. The concert hall elf, 7740 sq m, makes use of "surround-sound" concept ployed at Boettcher Hall in nver (P/A, Nov. 1975, p.). The large skylight over the ll is insulated, and reverbera-n time is aided by the coffered ling, exposed concrete walls, red steps, and wood paneling.*

ructure: *concrete framing th concrete block, concrete col-ns placed on grid of six me-s, spaces apportioned on 6m x module.*

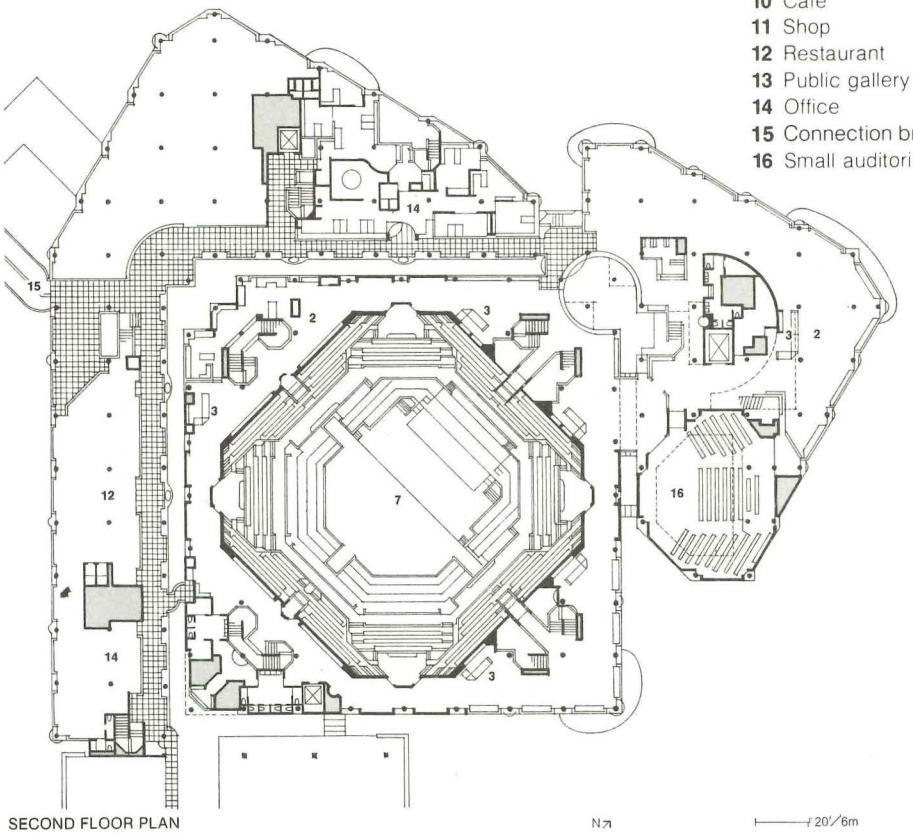
ajor materials: *concrete, con-te block, glass brick, white inted aluminum framing.*

nsultants: *P.A. de Lange d L.G. Booy of Institute of plied Physics in Delft, acous-s.*

st: *50 million guilders ($7.5 lion).*



THIRD FLOOR PLAN



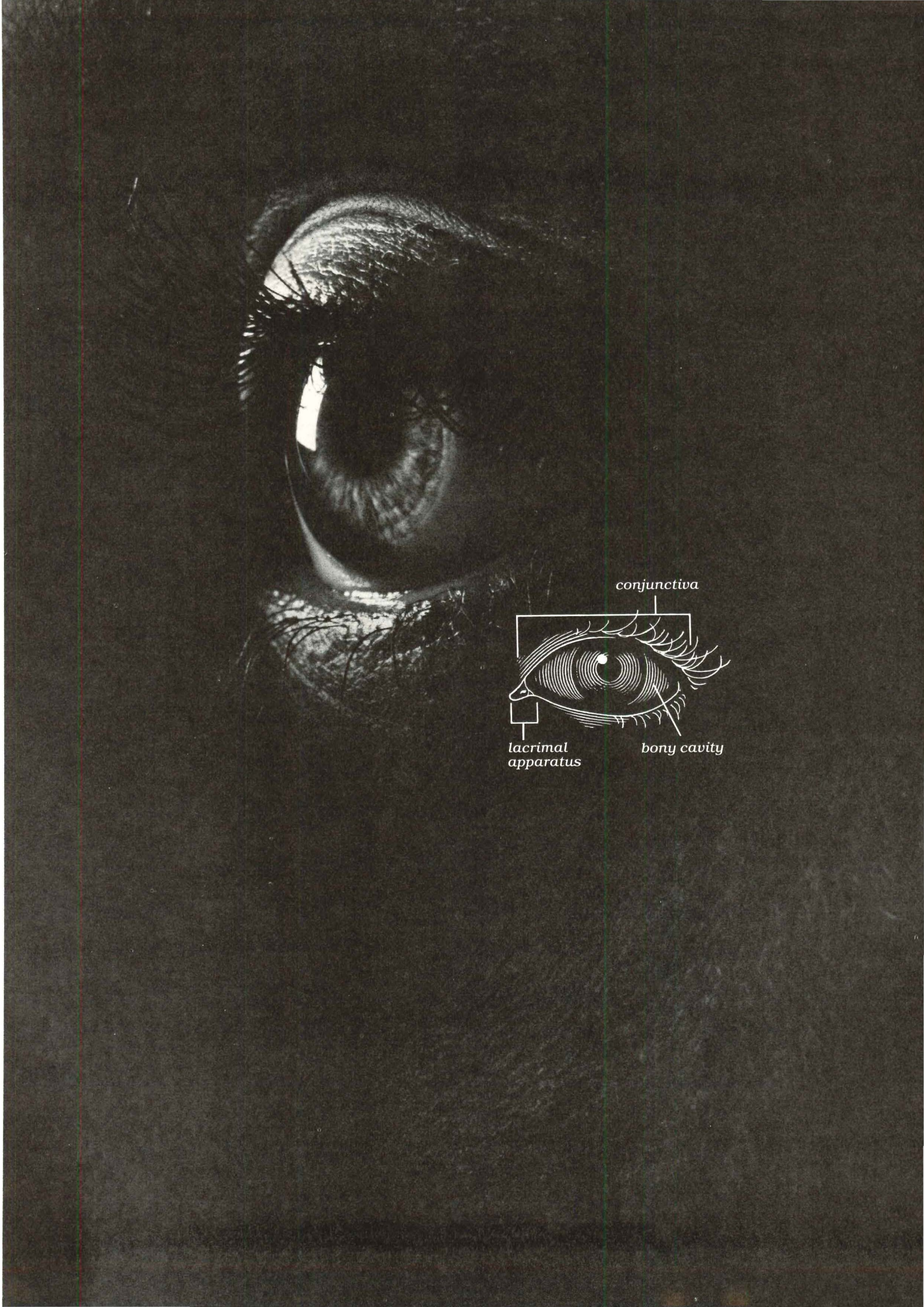
SECOND FLOOR PLAN

N

20'/6m

Legend

1 Exhibition, information
2 Foyer
3 Buffet
4 Storage
5 Music library
6 Dressing room
7 Large auditorium
8 Main entrance to auditorium
9 Shopping center Hoog Catharijne
10 Cafe
11 Shop
12 Restaurant
13 Public gallery
14 Office
15 Connection bridge to Hoog Catharijne
16 Small auditorium

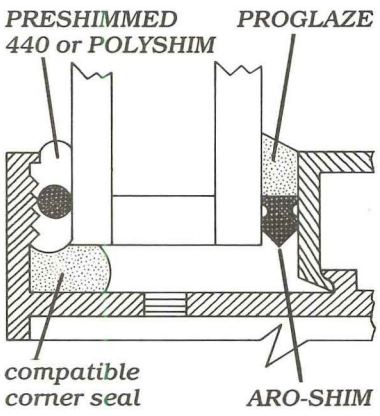

conjunctiva
lacrimal apparatus
bony cavity

Tremco borrowed some techniques from a very sophisticated glazing system. Yours.

What we've learned from nature. *The external structure of your eye consists of a bony cavity, muscles, eyelids, the conjunctiva (movable membrane) and the lacrimal apparatus (weep holes). This complex system deals with moisture, movement, atmospheric pressure and dust. Tremco's glazing systems are certainly less sophisticated but no less effective in solving the same problems.*

Specialized systems that give you more freedom of design. *No single glazing system can solve every window design problem, which is why Tremco offers several systems. Each one has been developed to satisfy particular glazing priorities. Tremco's "wet" systems employ gunnable sealants and preformed glazing tapes for leakproof security in a broad range of applications. "Dry" systems use cellular and dense gaskets to accommodate the high movement characteristics of curtain-wall construction. And a combination "wet-dry" system is ideal for solving the inherent problems of stick curtain walls, rainscreen walls or offset strip windows.*

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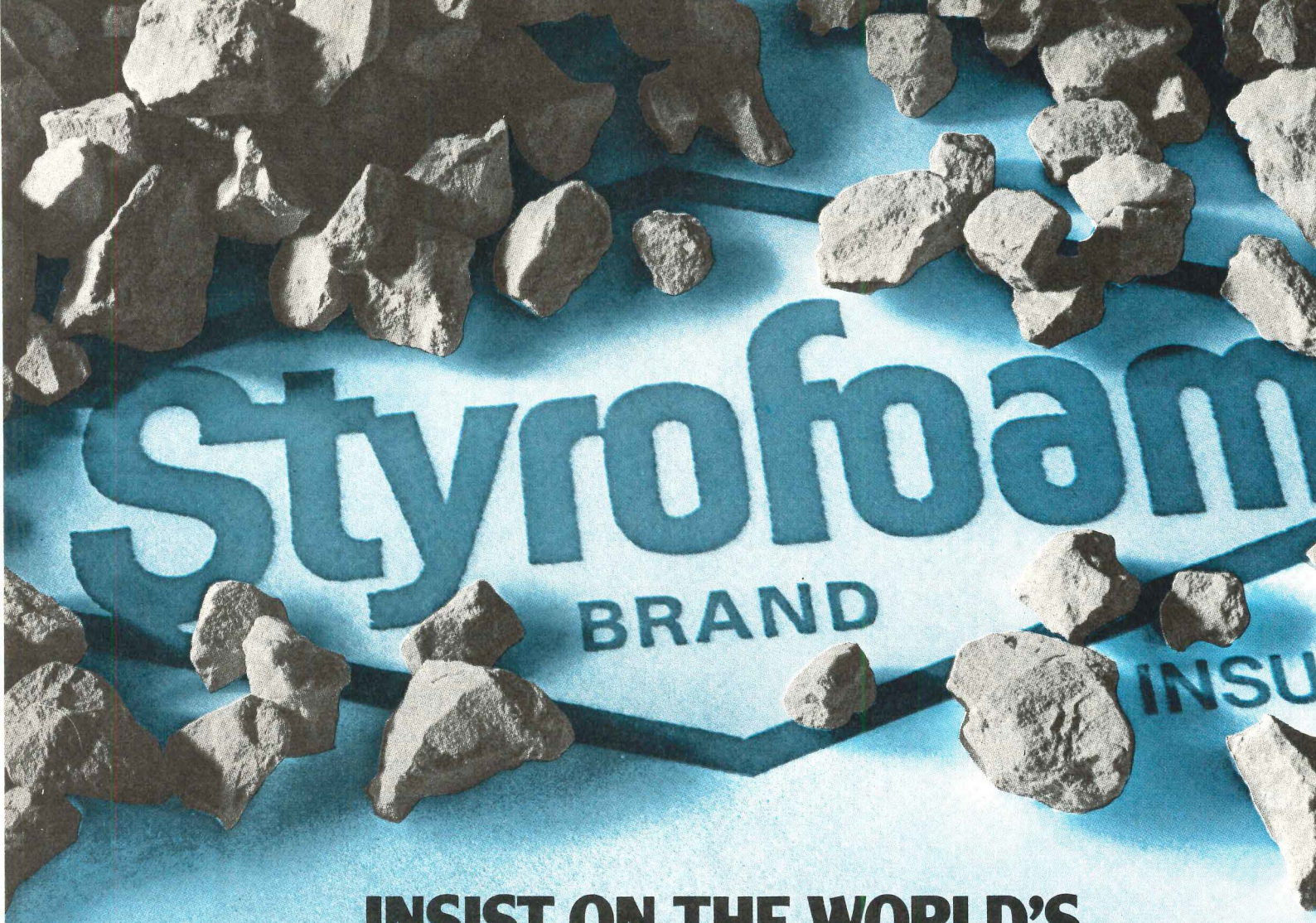
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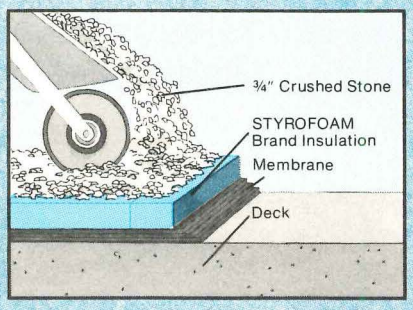


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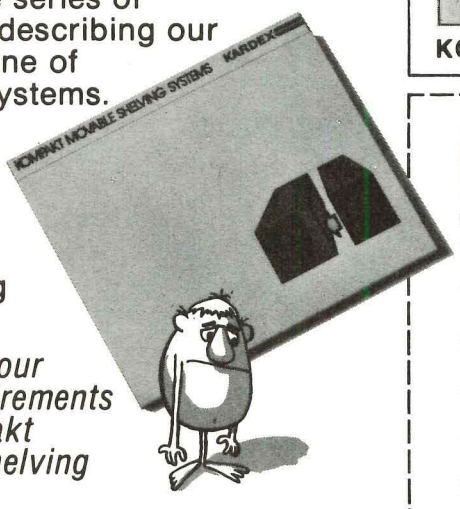
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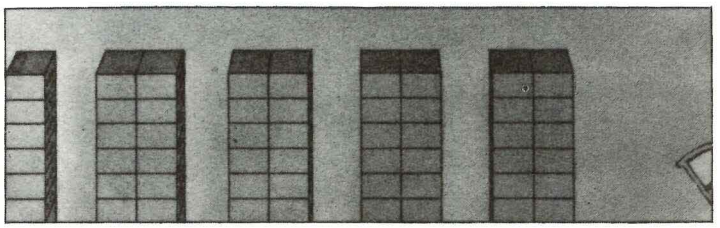
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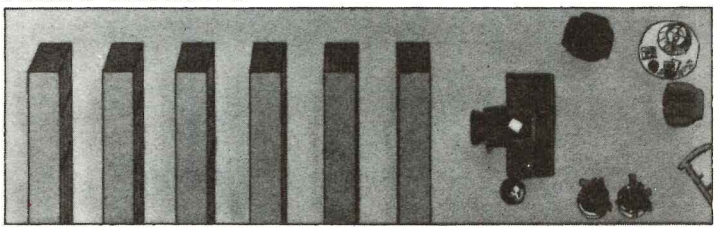
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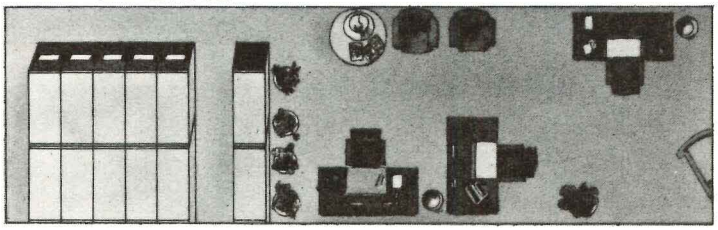
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Architect: Robert Bridges Associates, Ne

Specifying reasonable sample requirements

Villiam T. Lohmann

pecifiers often overspecify ubmittal requirements for amples. Such excess can re-ult in unnecessary cost, lia-ility, and lost time.

Like shop drawings, samples provide explicit information about a contractor's response to the contract documents and are reviewed by the architect or engineer for enforcing compliance with the design intent of those documents. Unlike shop drawings, however, samples serve at least three other unique purposes:

1 Finish samples of materials like plastic laminates and bricks allow the designer to select final colors and textures for materials to be used on the project. Sometimes comparison samples are necessary to verify a specified finish.

2 Quality control standards for fabricated work are established through samples of welded joints, fastening devices, and assemblies. Nebulous phrases in the specifications, such as "tight joints" and "grind smooth," are insufficient.

3 Samples are often required for performance testing. A curtainwall mockup is a good example.

Having the right to review submittals implies the architect/engineer's responsibility to do so. The design professional must therefore evaluate submittals carefully when they are required. Inadequate review could greatly increase professional liability if it results in a mishap. As with shop drawings, samples should be "reviewed" and not "approved." Samples which are unreasonable or unnecessary should not be specified.

There are compelling reasons for reducing the number of samples required for a project. Many materials, such as plaster, typical reinforcement, conduit, and standard concrete masonry units, have little or no design impact and can be examined at the project site. Work in progress can often be inspected at the plant or shop. Samples obtained during the design process can be used if referenced in the specifications. Any reduction in the quantity of samples to be submitted improves project logistics, reduces scheduling conflicts, and reduces office work load. It can also significantly reduce the cost of a project. The instructions for PSAE Masterspec Section 1Q1 "Samples" suggest that samples cost approximately ten times as much for preparation, submittal, and processing as the same amount of work in place. Bidders are fully aware of such expense and pass it on to the owner.

When specifying sample submittals, include the typical requirements in Division 1 of the specifications. Require a schedule for submissions which is correlated with the construction schedule. Typical samples must be described in terms of size increments, labels, quantity, and distribution. Insist on an accompanying transmittal letter and appropriate installation instructions, and be sure that the contractor is responsible for paying shipping and delivery charges.

Specific and unique sample requirements belong in the appropriate specification sections under Divisions 2–16. Size of samples can range from color chips to a curtainwall mockup. Be sure to indicate the number desired. Tell the contractor if complete sample items, such as locksets, may be installed as part of the work after review (another cost saving), and specify appropriate samples. A 12″ x 12″ welded hollow metal frame corner says almost as much about the product as a full-size frame. If an entire room is needed for evaluation of paint finishes, specify such a room.

Large mockups transcend normal submittal procedures and are very expensive to fabricate and transport. If comprehensive testing prior to fabrication is necessary for a custom-designed curtainwall, for instance, a mockup is essential. Allowance should be made, however, for possible testing at the fabricator's plant, if adequate facilities are available, instead of at an independent laboratory. If limited testing would suffice, the mockup could be assembled at the plant and later installed on the site. Field testing of a portion of the permanent wall in place is another option.

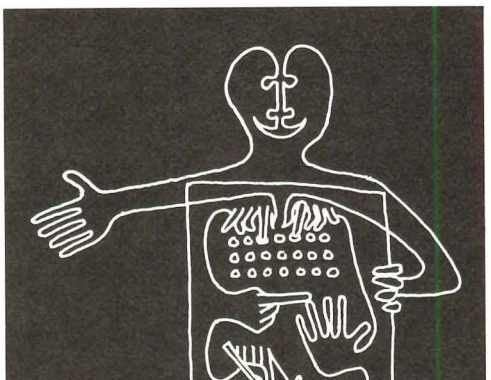
Some problem areas require particular diligence in specifying and processing samples. It is important to specify simultaneous submission of related materials for some assemblies and systems, such as glazing gaskets and curtainwall components. One cannot be evaluated without the other. The roofing membrane, however, may depend on the contractor's selection of roof insulation options and therefore should be submitted after the insulation. When submittals are incomplete or samples incorrectly identified, they should be rejected entirely and reviewed only when returned in proper form.

After review, one sample is usually returned to the contractor, another is sent to the architect's field representative, and a third is retained by the firm. The field representative's set becomes the basis for quality control. Some items may actually be installed. The architect's set should be kept for reference at least until completion of the project, then given to the owner, recycled to the manufacturer, or transferred to the firm's sample room. Where does one store a 3′ x 5′ welded steel pipe railing sample? □

Villiam T. Lohmann, AIA, CSI, is Specifications Manger for C.F. Murphy Associates, Chicago.

Taming little giants

As innovation increases the capacity of electronic information machines, their size and price are shrinking fast. Greater numbers of them are being found in the architectural and engineering office. The little giants are too fast, precise, and cheap to resist.



The price of a programmable calculator is now below $300. For under $5000, the computer store on the corner offers a microcomputer with a video display in color. A purchase of less than $15,000 enables an office to own a word processing machine that will type, correct, duplicate, store, and remember on command. The same investment scale will allow an A/E firm to buy its own desktop energy computer. Less than $30,000 buys a machine that will do sophisticated structural engineering analysis. A price well below $100,000 offers word processing, data processing, remote terminals, and the capacity of plugging into larger, main-frame machines. Below $200,000 it is possible to own a computer graphics assembly which will draft conventional size working drawings. In addition to the purchasing capability, all of the above can be leased, and access to a very large "unaffordable" computer may be had for a small monthly rental price and payment for the computer time used. And all of these prices are plummeting.

In this field of electronic wonders, many of the people who sell the machines are sleepy to sleeping at the specific mention of architects. Many computer companies position themselves to cover horizontally the broad spectrum of the small-business market, and business is good. Only a few companies have the expertise and interest to try to cover architectural business vertically. In contrast to the quantitative nature of his other clientele, the qualitative nature of the architectural decision-maker can frustrate the computer salesman. Many architects are unsure where their business is going to be six months from today, and they find it difficult to quantify their information flow and delivery speed. Nevertheless, the need is there and the average architectural office is being tantalized by the lowering prices. Some have already taken the plunge.

Examples: The 18-man San Antonio architectural firm of Rehler, Vaughn, Beaty & Koone recently installed its third-generation minicomputer. Until recently, one terminal and a single printer were actively doing accounting, income property analysis, cost estimating, and word processing. The new $25,000 Cromenco system will consist of four terminals and three printers allowing simultaneous access. The accounting and word processing are packaged software systems. These and other uses have been developed in conjunction with Micro-Mode, a local computer systems house that specializes in architectural applications.

Davis, Brody & Associates' new AM International minicomputer has software to do word processing, data processing, and accounting. Five terminal stations in the firm's New York office feed into a single central processing unit: three for secretarial work, one for shop drawings, and one for accounting. The Davis Brody system evolved from early experience with a time-sharing computer made available by a client. The uses proceeded from monitoring progress and drawings for a buildin to indexing, room finish schedule word processing, and specification Says Alan Schwartzman of Davis Brod "We have met our objective to see tha every secretary in the office has a term nal." The system can expand eventuall to eight work stations and still link into time-sharing network with a main frame computer. Deciding on their sys tem took Davis Brody one year.

The office of the Ehrenkrantz Grou in New York is practically a showroo of electronic machine processing aid Hospital space programming, wor processing, accounting, and energ simulation are all on computers of var ous sizes. The first "time-shared" term nal was put in place in the early 1970s t do computer-aided hospital program ming. By 1974, a minicomputer was in cluded, in addition to word processin and spec writing. In the late 1970s, ac counting was introduced as well a energy simulation with a micro computer, small graphic plotter, an high-speed printer. None of th machinery is owned by Ehrenkrantz; is all leased. A high percentage of a architectural installations are leased.

Says Peter Kastl of the Ehrenkrant firm: "We have computer power that w are always looking for ways to use." H approaches the different machines wit varying degrees of certainty. "I canno tell you where we will be next year wit energy," he explains; "I can tell yo where we are likely to be with wor processing." Kastl is convinced of th value of word processing: "Anybod who produces specs would have to ex amine word processing if for no othe reason than reliability." Ehrenkrant has been watching the lowering price c computer graphics with great intere but has not yet indulged.

The A/E firm of Gibbs & Hill in Ne York cost-justified its use of com puterized drafting years ago. Large scale power plant design and enginee

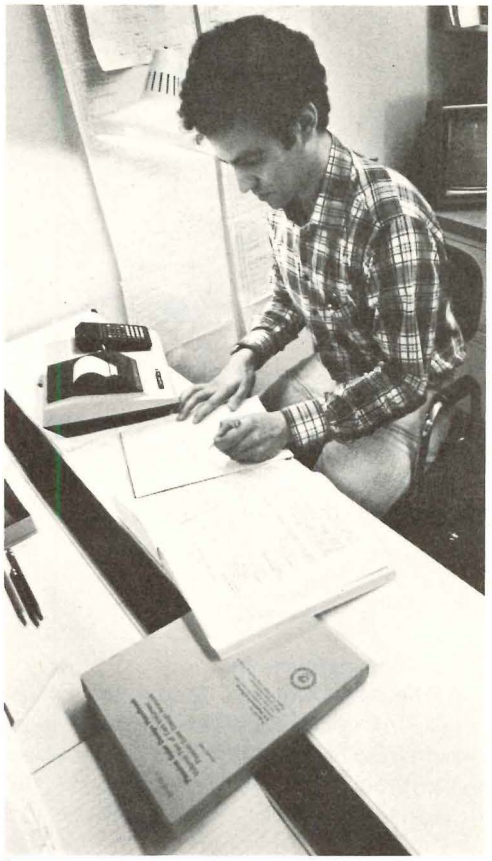
ıg applications make the firm one of ıe leaders in the field and allow for ɔnstruction documents than can con-ıin thousands of drawings and details. ɔme "drafting rooms" at Gibbs & Hill ɔok more like a television station. The ngineering computer capability of the rm has also increased to the point here a separate group within the firm, eographical Information Services GIS), is occupied exclusively with solv-ıg problems related to the com-uterized management of spatial in-ɔrmation.

These examples reflect major im-rovements over the past two decades. .s architect/computer consultant Frank tasiowski reminds us: "What we now ıll a hand-held calculator was a com-uter 20 years ago."

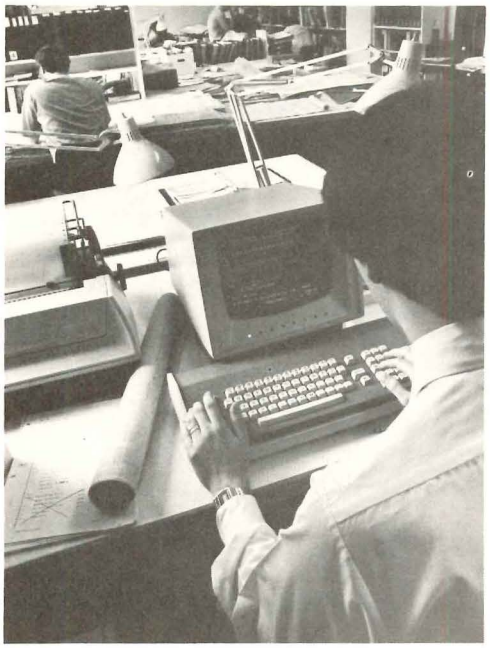
Hand-held programmable calculator

ital Darayanani is chief of design for yska & Hennessy, engineers, in New ork. During the mid-1970s, Daryanani ɔent much time in the Middle East on ngineering design and overseer as-gnments. The use of large-scale com-uters as design aids was ruled out be-ause they were too expensive or simply navailable. Daryanani decided, there-ɔre, to explore the then-fledgling pro-rammable calculator market. In the nonths that followed that decision, an irplane ride or an airport wait pro-uced enough time to generate a new alculator program. What had taken two eeks of hand engineering calculation as reduced first to two days, then a alf-day, then two or three hours. oday there are some 20 programmable alculators being used at Syska & Hen-essy, and Daryanani has recently pub-shed a book containing 22 different rograms: *Building Systems Design with rogrammable Calculators* published by IcGraw-Hill. The programs include iping design, duct sizing, lighting cal-ulations, solar shading, space planning, nergy calculations, life-cycle costing, nd others. About a third of them are irectly appropriate to use by archi-ectural designers.

A recent major function of the pro-rammable calculator has been energy alculations. The Royal Institute of ritish Architects has an extensive nergy design program using the exas Instruments TI-59 calculator. hroughout this country, several design rms offer energy programs for the rogrammable calculator. From New ampshire, Total Environmental Ac-on or TEA (p. 63) markets a pro-ram called TEANET. Massdesign in ambridge, Ma, is offering the Sun-ulse II solar simulation program, de-eloped by architect Gordon Tully, for se in active and passive solar design. nother alternative, LBL/Passive, has een created by David Goldstein and obert Clear at the University of Cali-

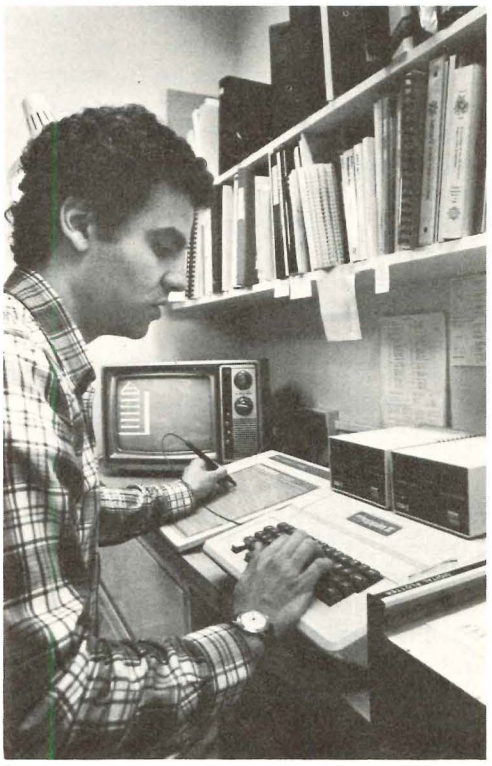


1



2

1) Michael Golubov of Ehrenkrantz operates programmable calculator. 2) Word processor in use at Davis Brody. 3) Golubov shown with micro Apple II, digital plotter and 4) remote printer terminal. 5 & 6) Computer drafting room at Gibbs & Hill.



3



4



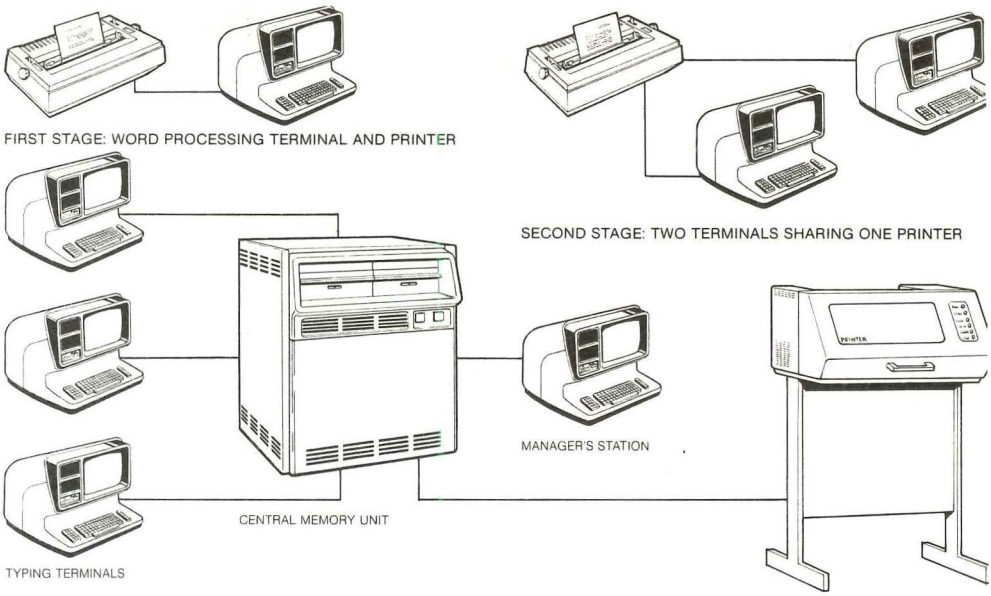
5



6

Photos: Dorothy Alexander

A word processing system: *A growing office needs a system that can grow. All systems are based on a keyboard input device, a viewing screen, and a printer. Most first-stage systems can be purchased for less than $15,000. Adding another input terminal allows two typists to work simultaneously and avoids costly paperwork bottlenecks. The second-stage system is priced about $26,000. A "full grown" cluster of typing stations works from a central memory unit and gives all machines access to the same information. It costs around $52,000. Costs are, of course, approximate.*



fornia, Lawrence Berkeley Laboratory. It can also be used for passive solar design (p. 63). SOLARCON, in Ann Arbor, Mi, offers a Midwestern source of solar programs on both Texas Instruments and Hewlett-Packard machines.

The machines: The use of solid-state software in the form of magnetic cards makes it possible to turn a normal scientific calculator into a custom calculator that will perform sequential mathematical operations and store data. The two leading manufacturers in the field at the moment are Texas Instruments and Hewlett-Packard. Daryanani's programs are designed to be used on the TI-59 and HP-97 machines.

For the purpose of aiding and speeding up calculations in the field, the programmable portable calculator is ideal. The price is going down each year and is within reach of any professional. In the office, however, the user can soon outgrow the calculator. Says Daryanani: "As soon as you start programming, you write bigger and bigger programs." Eventually, as skills increase, a larger machine becomes attractive. Parker Hurtle of Bolt, Beranek & Newman, Cambridge, Ma, originally wrote the OPLAN computer program (P/A, Sept. 1979, p. 201) for open office acoustics for the programmable calculator. He eventually graduated to a large, mainframe computer which could be used in remote locations by time sharing and allows the alpha-numeric English word interaction with the computer and the user.

A first-time user of the programmable calculator who expects to find "quick and dirty" energy design solutions may find the process surprisingly complicated. The smaller the computing system used, the more the solution relies on the brain of the user.

The word processor

Architectural design is partly words. There are specifications, schedules, logs, brochures, forms, contracts, letters, and proposals. Some of the words on the drawings should not even be there. All of the words not on the drawings are typewritten.

National studies have demonstrated that a typist who has been tested at 80 words per minute actually averages a typing speed in the office of around 15 words per minute. There are some obvious reasons for this and some not so obvious. The test for typing speed is usually made copying a perfect sheet of typing. All the lines are of known length and number. In the office, the typist starts a line, speeds up in the middle and slows at the end, anticipating a word break or overrun. The speed of typing whole lines also slows down towards the bottom of the sheet, where corrections are more difficult to make.

A word processor is a computerized typing machine which usually consists of a typewriter keyboard, a viewing screen, and a printer. The basic difference between the normal typewriter and such a machine is that the whole page, or several lines, can be typed without slowing down. The machine automatically proceeds from line to line without breaking words. Corrections can be made on the screen without touching paper. When the page is complete, the author can proofread and correct or even omit words or lines. A push of a button produces as many copies as desired. Not having to think about errors, the end of the line, or the end of the page obviously speeds up the process.

If the typist is not the author, the page needs to be proofread. If a change is necessary, the typist calls the page onto the machine and makes the change. If it is a large error or repair, the page must again go to the author. With many word processors, the change can be automatically bold-faced or underlined on the copy that is proofread, saving th proofreader time. When the page is ac cepted, the corrections are perfectl typed, and the final copy is made. Th letter itself can then be entered int memory and "filed," without walking copying, or large file cabinets.

The longer the typewritten work, th more time is saved. Whole sections ca be deleted, and the document is auto matically repaged. The margins can b readjusted or the type face changed i seconds.

Case history: The architectural firm o Russo & Sonder in New York specialize in health care facilities. It is a medium sized office that ranges from 40–6 people. The Vydec 1400 word processo has been in use at Russo & Sonder fo one and one-half years. The $14,00 machine has been leased for aroun $600 per month. It replaces one em ployee. After a two-day course, the tw people who specialize in its use took on week to adjust to it. The office spe writer then wrote a master specification which was entered onto a disc on th machine. The use soon branched int planning studies, equipment studie and graphics listings. It has also prove very effective in customizing the offic brochure to fit each particular client need. A new addition to the system wi allow two keyboards with accompanyin screens to use a single printer. Th bottleneck proved to be one typist com posing with the other waiting.

Spec writing: Computers have bee employed for specifications writing fo several years. As the machines com down in price, more architects will b evaluating the packaged software fo

is purpose. When they do, they will nd two architecturally oriented sys- ems.

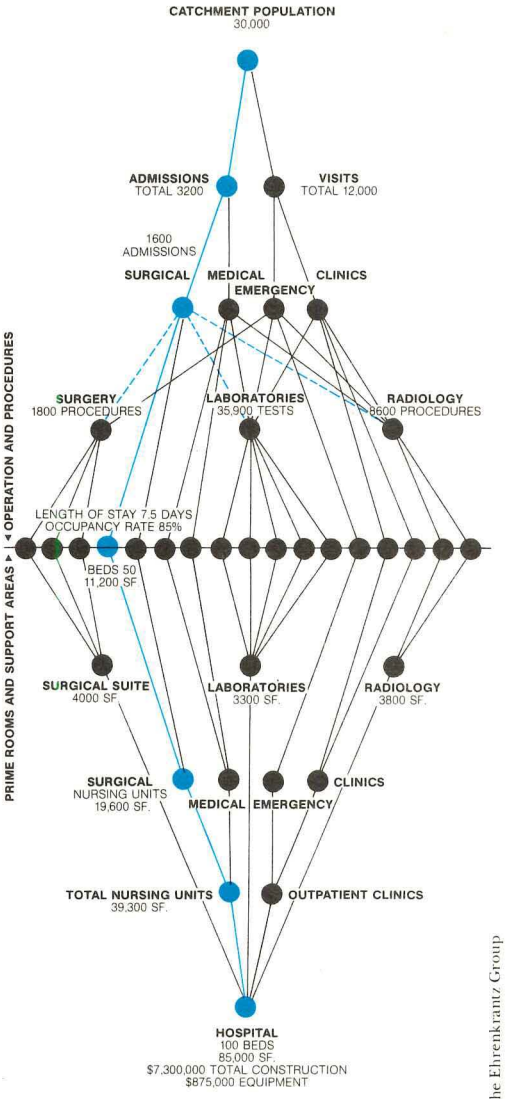
lasterspec 2: During the first ten years f its existence, Masterspec accumulated ver 2000 users. Developed by Produc- on Systems for Architects & Engineers PSAE), the Masterspec system includes ne option of computerized disc storage f the entire specification (P/A, Oct. 974, p. 106). Less than three percent of ne users, however, have opted for the omputer version. The newer, stream- ned Masterspec 2 will be lower in cost. he expected cost of the hard copy will e $395 with an updating fee of $245 er year. The Lanier disc library version ill initially cost $470 with an update fee f $145 each year. For machines other an Lanier, a software conversion cost ill about double the disc cost. The new stem will be available in mid-June. It is ndorsed by the AIA, ACEC, and SPE.

PECTEXT: Also available as of mid- une is a new master specification for ne word processor or computer, SPEC- EXT, on Lanier. The 1800-page docu- ent, which follows the 16-section CSI asterformat, has been endorsed by the onstruction Sciences Research Foun- ation and by CSI. The specifications stem has been available in hard copy rm for about one year. Bowne Infor- ation Systems in New York has been esignated as the sole vendor of the sys- m in electronic form and exclusively n new Lanier XD discs. There will be wo methods of utilizing the electronic pecifications system. Architects who wn Lanier word-processing machines eed an XD disc attachment for the achine and then pay $3000 for the 40 scs and hard copy. The updating cost er year will be $1000.

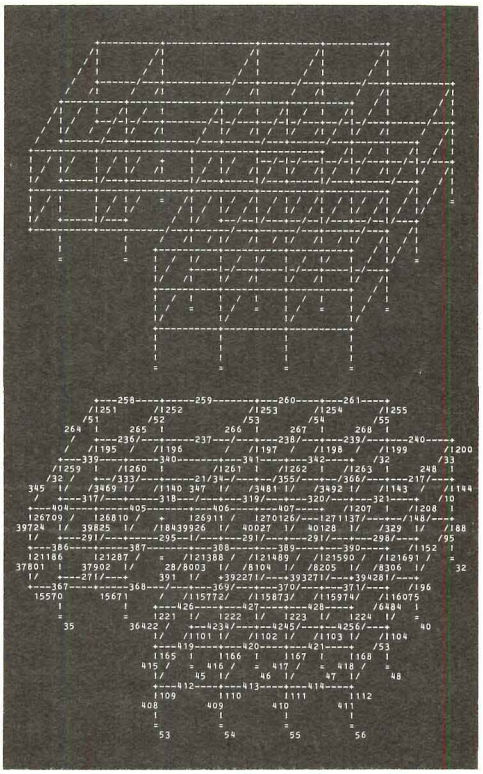
The less expensive method is the "on- ne" version. For $850 per year, the anier word processor will be linked to owne Information Systems via an 1800 phone adapter. The discs will emain at Bowne. For each page of copy rwarded, the subscriber will be harged $2. The subsequent cost of up- ating will then be $650 per year. The rrent cost of the hard copy alone from SI is $850.

omputers

is important to understand the dis- nction between word processing, data rocessing, and information processing. word processor involves a constant in- raction between the user and the achine. The output instantaneously llows the input. With a data processor, ne user types information into the achine and then the machine is called pon to compute. In computer lingo, ne word processor is input/output ound, and the computer is compute ound. The word processor uses a naller central processor and is less



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Structural Programming



The Ehrenkrantz Group

TI-59 programmable calculator in use.

Dorothy Alexander

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009	02	02	028	98	ADV
010	91	R/S	029	91	R/S
011	76	LBL	030	43	RCL
012	16	A'	031	01	01
013	99	PRT	032	99	PRT
014	61	GTO	033	35	1/X
015	22	INV	034	99	PRT
016	76	LBL	035	98	ADV
017	11	A	036	98	ADV
018	99	PRT	037	91	R/S

BHTP-1 HEAT TRANSMISSION COEFFICIENT PROGRAM

The output of a computer takes many forms. The hospital program in the diagram above statistically approximates hospital function size. The structural design diagrams visually display all design choices. Sital Daryanani's calculator program determines heat transmission coefficients on a TI-59.

powerful; therefore it is cheaper. A word processor uses a large-scale, instantaneous nonrepetitive process. It needs a screen. The data processor is a "background" large-scale repetitive process. It needs no screen. A unit that will do both is called an information processor.

Most industry figures agree that for the moment, the combination unit does not yet yield the highest quality in both word and data processing. They are quick to add, however, that developments are taking place within the industry that will permit excellent overall quality within five years. They also predict the price of the information processor will be reduced drastically in the near future. At present, a word processor might fall in the range of $15,000, a data processor $30,000, and an information processor $100,000. The prices are coming down monthly.

Micros: What is mini and what is micro is somewhat ill-defined by the industry. If it costs less than $5000, cannot have

more than three terminals attached to it, and is sold off the shelf in a store, it is probably a microcomputer.

Ehrenkrantz has linked up a color TV (that serves as a video console), an Apple II microcomputer keyboard terminal, a graphics tablet and light pen, and a small graph plotter. The total assembly cost less than $7000 and is used for energy simulation.

A desk top computer: In the mid-1970s, the Carrier Corporation wrote its own energy analysis program for internal use. It was based on ASHRAE 90-75 and was called REAP (Rational Energy Analysis Program). The machine chosen was a Canon BX-1. The program was written in BASIC, and the interactive instructions appear one line at a time in a narrow window above the keyboard. The entire unit is self-contained (including the printer) and is only slightly bigger than a typewriter. The four levels of programming enable professionals to calculate design loads, heating and cooling consumption, system analysis, and life-cycle costing. The REAP BX program comes on 30 mini floppy discs. Carrier was so pleased with the in-house results that it has just begun to market the machine and the program to design professionals. It is expected to sell for just under $10,000.

Mini: Boston engineer and systems building designer Neal Mitchell has recognized the great potential of the minicomputer as a design aid. He is convinced that such tools "enlarge the capacity of the professional." To accomplish this task, Mitchell has formed Structural Programming, Inc., and sells DEC (Digital Equipment Corporation) computers and the software for word processing, construction management, structural engineering, and RUCAPS, a production drawing system. He has attempted to simplify the use of these complex tools to the point where most architects can use them. Says Mitchell: "The effort is to decrease the complication of the user interface. The architect stays the architect, the engineer becomes the box." The basic machinery sells for about $20,000. The structural program sells for another $20,000. The word processing software is under $3000, and the total drawing system hardware and software sell for around $200,000.

Maxi and time sharing: Owning your own computer, of course, does not stop with the purchase of the hardware and software. Maintenance contracts must be arranged, and staff must be trained or hired. Through leasing arrangements, the machinery might be maintained and a software technical consultant thrown in as part of the deal. No matter how these machines are equipped, however, they usually cannot compare in the number and size of programs that might be obtained from a time-sharing service.

With time sharing, the user can call up any one of 50 or 60 programs and will be charged only for the time spent on line. Often the time-sharing firm has technical expertise available as close as the telephone.

For less than $100 per month, the user can rent a typewriter terminal. For as much as $600 per month he or she can also have a high-speed printer and video display. The time cost is a complicated equation which takes into consideration the time spent on the machine, the type of computing done, the memory space used, and the lines printed out. A recent 14-hour structural computation designed 5000 structural members and cost about $8000. An unadorned computer analysis for a DOE design Energy Calculation using DOE 2 can cost in the neighborhood of $500 in computer time. Such numbers are of course relative to building size and type. They do put into perspective, however, the kind of expense which a computer user can accrue.

The time-sharing system is not competitive with a word processor. A page of typing by time sharing can cost three times that of a word processor. For the infrequent user of smaller programs or the firm that is looking to minimize its capital outlay and maximize its programming menu, time sharing competes very well. It is also the only way that a firm can have access to a large computer and the kind of expertise a very large firm may own.

The software and the selection

As of July 1, 1980, architect/computer consultant Frank Stasiowski will publish *Design Compudata,* the first directory of software and hardware systems specifically for architects, engineers, and planners. The cost will be $80 prepaid from *Design Compudata,* 45 Van Brunt Ave., Dedham, Ma 02026. The purpose of the book is to help the architect choose the correct software/hardware vendor system. To accomplish this task, Stasiowski has coupled a lengthy selection process explanation with a listing of over 175 systems now in use in A/E and planning firms. Also included are computer consultants, publications, bibliography, and glossary of terms. The text promises to be the first "bible" of selection for the architectural portion of the industry.

The selection of a system begins not with hardware, but with software. "What I see as the most important part of the selection process is the software,"



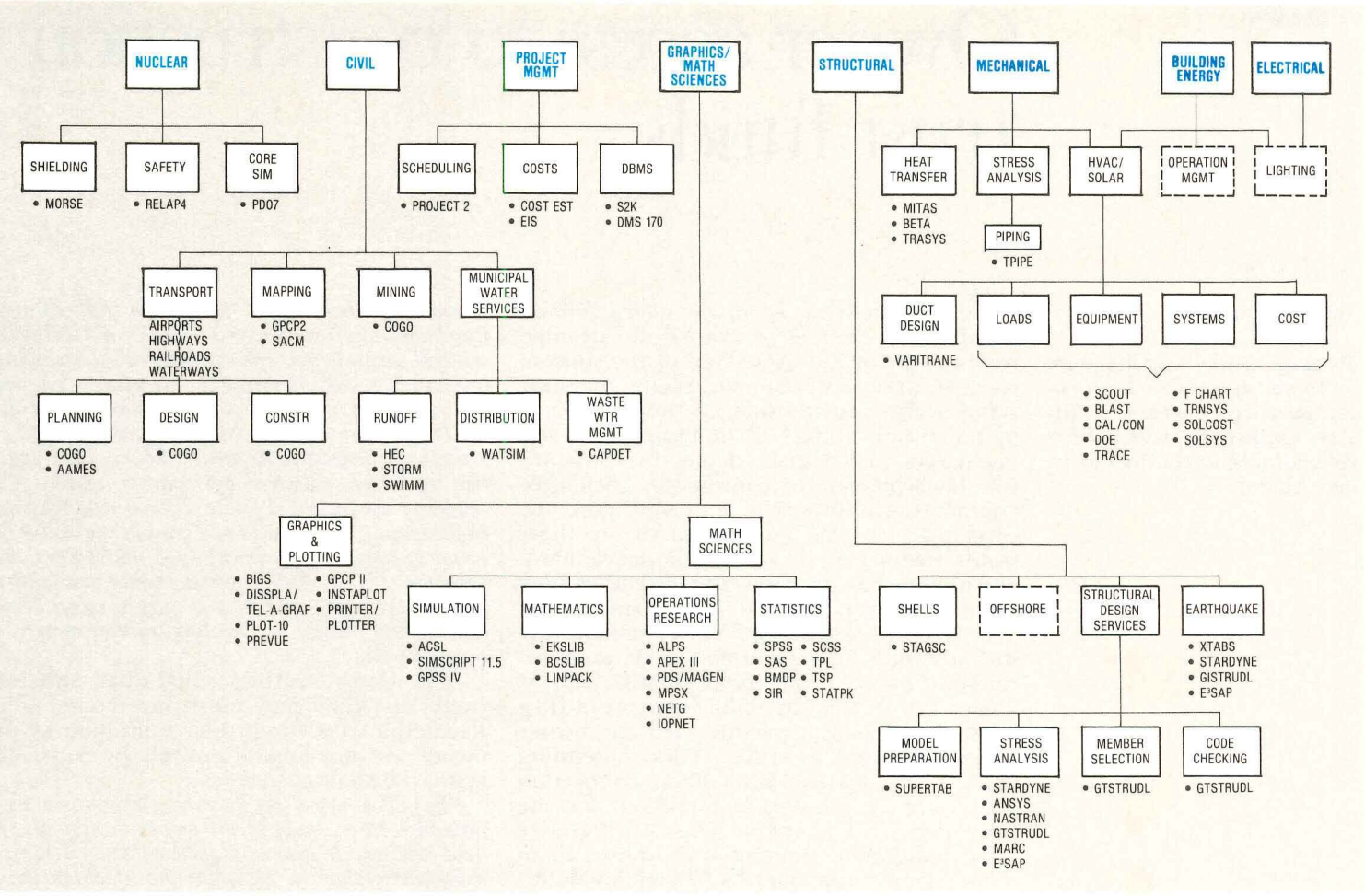
A time-sharing system can function independently or in conjunction with smalle systems. The Ehrenkrantz office (above) uses single high-speed printer to service both a microcomputer and time-sharing device. At right, the full spectrum of computer program available through time sharing can be very large.

says Stasiowski; "the key question wit software is being able to change it Once the software expectation is deter mined, the hardware can be matched t it. "All the hardware will work," he con tinues; "the question is how muc money will it take to make it work." Th price of the software involves labor co and is therefore going up.

Stasiowski outlines a nine-mont "birth" process for determining and ob taining the correct computer systen The first three months are spent i self-evaluation. The second thre months are spent in market evaluation and the last three are used to sign th contracts, educate the staff, and insta the unit.

The self-evaluation stage is seen a critical. The firm must take stock of th total scope of its work that can be ac complished by machine and concentrat on that area which can be most profita bly mechanized. Future growth an change are critical. The potential syster owner must meticulously document th velocity, type, and volume of informa tion which will be machine processed Stasiowski calls it: "How much of wha and how often it is used." This stud serves as the physical representation o what the company "policy" is towar that data, and "software is policy." Th result is a "specification" for the system

The second stage of the process is t try to match the specified software de mands with the existing availabl software and try to evaluate whethe that package can be changed and how This is where the vendor comes in. Eac software system has its own "policy



Graphics courtesy of Boeing Computer Services

ME SHARING SERVICE: ENGINEERING MENU

uilt in, and unless the vendor understands the policy of the firm, "the system nd the firm can be mismatched."

Stasiowski plans a system for growth nd future change as far ahead as five ears. "I also like to recommend to firms at they get as many different applicaons as possible on the same machine." e cautions firms against exaggerated xpectations and estimates that at least vo years are necessary before the sysm really reaches efficiency.

Of course the bottom line for a coputing system is the cost. Stasiowski's ule of thumb for a computer is that the tal equipment and personnel cost ould be equivalent to about 1 percent the firm's gross fees for the year. This eans that if a firm does $3 million ork for one year, it can afford $30,000 er year for five years to pay off the stem, or $150,000. Part of the decion, of course, is when to buy. The rice of hardware is dropping about 30 ercent per year. Because of this, asiowski predicts "within ten years, ne out of four professional architects nd engineers will have a computer rminal on his or her desk."

he future: Frank Stasiowski makes anther prediction based upon the conant lowering of cost of the hardware: Ten years from now, 80 percent of all rms will use computer drafting," and he adds, "Hardware by the end of the decade will be given away to encourage people to purchase the software." He sees computer graphics as eventually streamlining the working drawing phase of design development, allowing more time for design.

One large West Coast firm, which currently uses computer drafting, has three work shifts per day. The night crew just comes in to watch the drawings emerge from the plotter rolls. Even the plotter may be eventually dismissed in preference to a piece of film placed across the computer terminal's video screen and photographically exposed. This means that a remote terminal at the building site can call up a drawing electronically whenever necessary, eliminating the need for a permanent set of drawings.

Conclusion

A list of "Computer Revolution Facts" furnished by IBM contains the following statement: "The first computers could multiply two 10-digit numbers 2000 times a second and in four hours could do a job that would have taken a mathematician 1500 years. By 1952, it cost $1.26 to do 100,000 multiplications. By 1958, the cost had dropped to 26 cents. Today the cost is a fraction of a penny."

The question is not whether to use computers, it is how. It is not when, it is now. [Richard Rush]

Acknowledgments

We wish to thank the following architects, engineers, consultants, and manufacturers for their help in preparing this article: AM International; Apple Computer, Inc.; Auto-Trol; Leonard Bain; Vladimir Bazjanac; Boeing Computer Services; Bolt, Beranek & Newman, Inc.; Bowne Information Systems; Carrier REAP BX; Control Data Corp.; Data General; Davis, Brody & Associates; Digital Equipment Corp.; Educational Data Systems; The Ehrenkrantz Group; Gibbs & Hill, Inc.; Herman Miller; Hewlett-Packard; IBM; Johns-Manville; Lanier Business Products; Lennox Industries, Inc.; McDonnell Douglas Automation Co.; The Meltzer Group; Micro-Mode; Modern Office Procedures; Realco Information Systems, Inc.; Redactron Corp.; Rehler, Vaughn, Beaty & Koone, Inc., Salvatore N. Romano; Russo & Sonder; SOLARCON; Frank Stasiowski; Structural Programming, Inc.; Syska & Hennessy, Inc.; TEA, Inc.; Texas Instruments; Vydec; Wang Laboratories, Inc.; Wordstream Corp.

For computer product and literature information, see p. 115.

Owner access to construction trust funds

Norman Coplan

Mortgage and building loan funds set aside for the protection of contractors, architects, engineers, and others are available to the owner in some cases.

Under the lien law of many states, monies payable to a general contractor are deemed trust funds for the protection of the subcontractors and materialmen. Many of these statutes also provide that all funds received by an owner by way of building loans and mortgages shall also be deemed trust funds for the protection of contractors, architects, engineers, and others. Under such laws, the owner, as trustee, is obligated to use those funds solely for the cost of improvements, and anyone having claims for the cost of such improvements is deemed a trust beneficiary.

In a recent case in New York arising under such a statute, an issue of first impression was raised (*Fentron Architectural Metals Corp.* v. *Solow,* 420 N.Y.S. 2d 950). The plaintiff, a construction subcontractor, sued the owner under the Lien Law of New York contending that it was owed over $400,000 in connection with work and materials furnished for the construction of a unique 50-story high-rise office building in Manhattan. It was the claim of the plaintiff that out of a $75 million building loan, the owner had diverted approximately $23 million from the trust fund by the expediency of paying such sum as "ground rent" to himself. While the payment of ground rent is recognized as a "cost of improvement" under the Lien Law, the assertion that the payment of ground rent by the owner to himself, or his nominee, is an unlawful diversion from the trust fund had never been considered before.

In order to stretch the debt financing of the property to the maximum, the owner had employed the technicality of split financing, separating the parcel into fee and leasehold interests, each of which was separately financed. The owner conveyed fee title to the property to a wholly owned subsidiary, which in turn granted a 90-year ground lease to another subsidiary corporation. The bank gave a commitment for a construction loan in the sum of $75 million, secured by a mortgage on the leasehold. The subsidiary corporation that had been granted the leasehold assigned its lease back to the individual owner, but each time a payment on the construction loan was made, the owner assigned the leasehold to still another subsidiary corporation, which received the money, endorsed the check, and reassigned the lease to the owner. The owner deposited the funds in the subsidiary corporation that had been originally granted the ground lease, which company financed the cost of construction. A similar method of financing was used in connection with the fee estate.

Although the system of financing utilized by the owner was undoubtedly complicated, the Court pointed out that it did not constitute a plan to cheat beneficiaries of the trust. The Court said:

"(A)lthough the conveyances and reconveyances to the various entities appear incredibly complex, it was no more so than the expert passing of a professional basketball team, where the ball change hands quickly from player to player, one bringin the ball down court, one evading double teamin one feinting, and one going for the basket—but wit the same team in continuous possession of the ball.

"Here, there were separate fee and leasehold es tates, both owned by (the owner) Solow. Each estat was separately financed by separate lenders. Th holder of the leasehold estate (Solow) was obligate by the terms of the lease to pay ground rent to the fe owner (Solow). The payments were not illusory, the were the security against which money was loaned It was not, in the view of the court, a secret devic for milking funds or cheating subcontractors o their just due."

The Court further ruled that althoug under the Lien Law mortgage monies wer deemed a trust fund, their utilization by th owner was not limited entirely by trust con cepts. The Court stated:

"Payments out of the financing proceeds are no forbidden to be made by the owner to himself. In deed, the statute expressly contemplates reimburse ment to the owner for costs of improvement incurre prior to the date advances were received.

"Although denominated a trust fund, not on may the trustee reimburse himself, but he need no hold the fund intact, and he may commingle th funds. He may treat the trust funds as runnin bookkeeping balances rather than as segregated ac counts. When the financing proceeds, or equivalen sums, have been fully disbursed, the trust funds ma be deemed exhausted, even if there remain subcon tractors with outstanding claims. They must the look to the general funds and credit of the owner, o of his bonding company, for further satisfaction."

The Court concluded by pointing out tha the owner's expenses for cost of improvemen came to $50 million in excess of the financin proceeds which constituted the so-called trus assets. If, therefore, there had been a diver sion by the payment of ground rents to th owner, "he more than made up for it by re placing those sums with other sums whic more than restored the partially deplete trust." The Court stated:

"The ground rents in question paid during con struction pursuant to the lease aggregated $23 mi lion. The owner having added $50 million of fund from other sources to the trust funds to pay for cos of improvement, there was no skimming off by th owner to the detriment of subcontractors. The un derlying purpose of Article 3-A of the Lien Law i to prevent an owner or general contractor fro pocketing construction loan proceeds for his ow benefit when those who have added value to th improvement are deprived of a source of paymen Although the ground rent payments were 'to him self,' the owner did not improperly siphon off fund to enrich himself at the expense of the subcontrac tor." □

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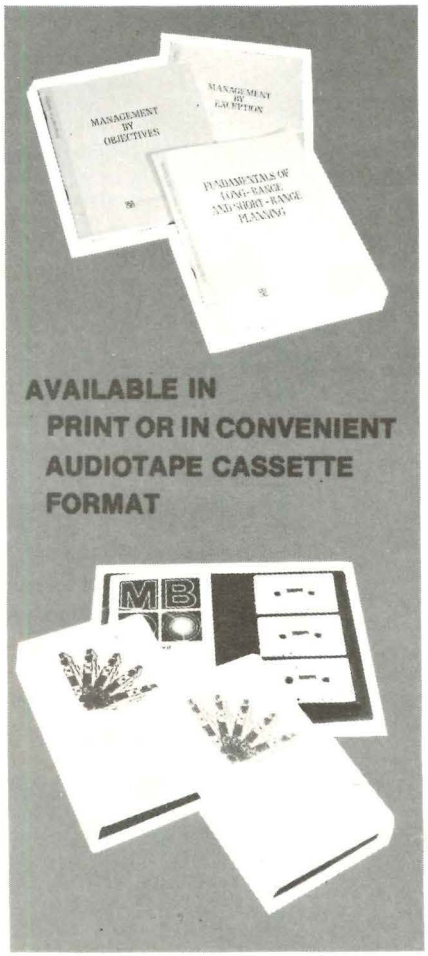
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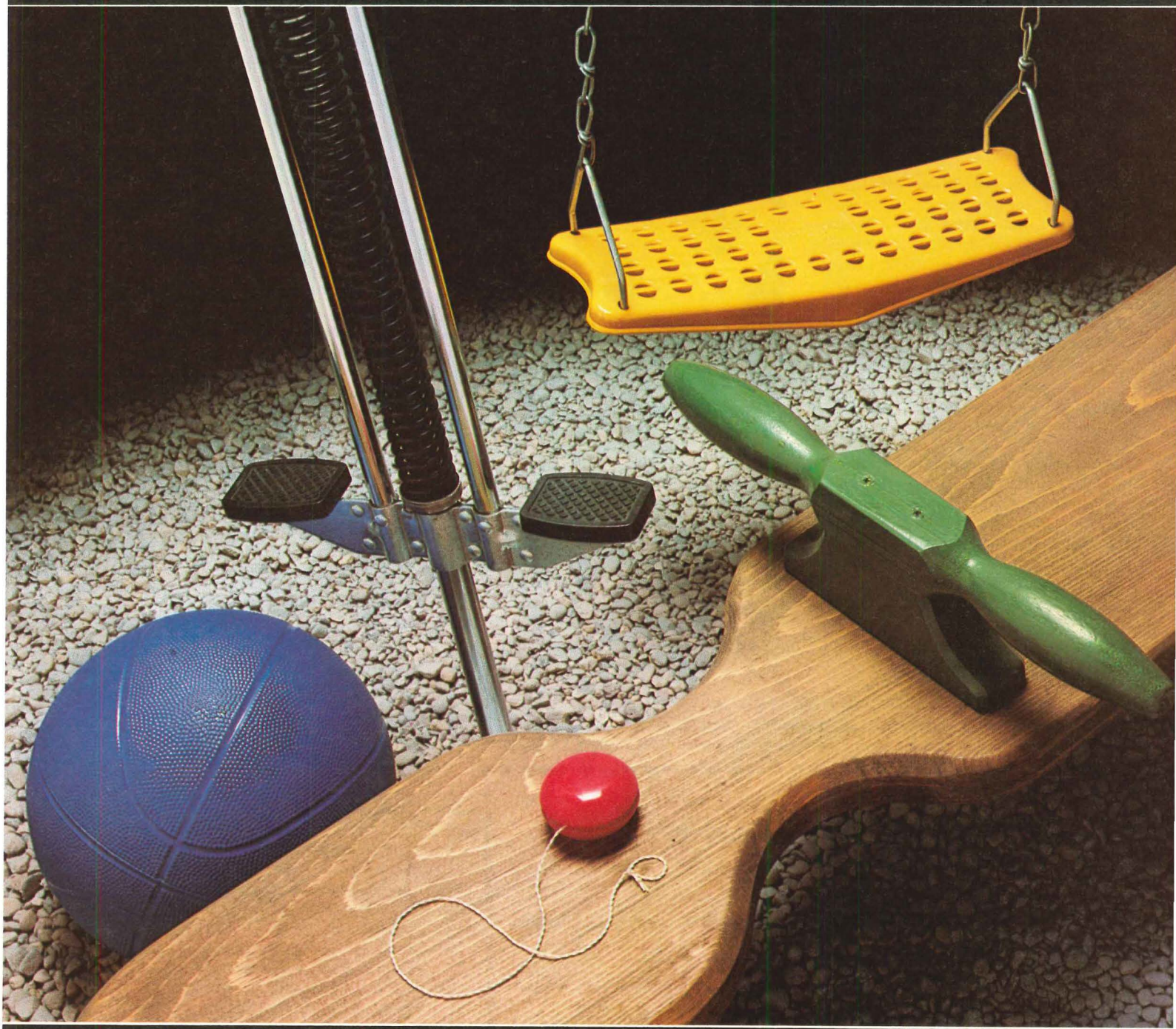
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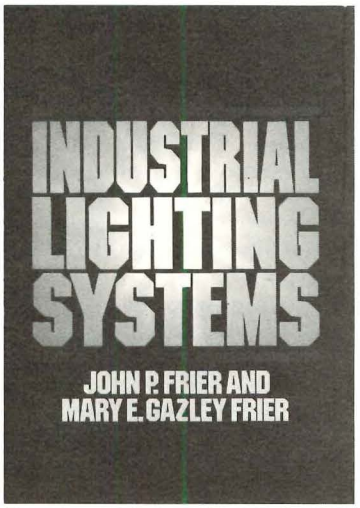


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lechanical and Electrical Equipment for Buildings, 6th dition, *by William J. McGuinness, Benjamin Stein, and John S. eynolds. New York, John Wiley & Sons, 1980. 1336 pp., $35.95.*

his new edition of the standard reference in the field of echanical and electrical equipment has been updated to in-ude current thinking on the world-wide energy situation nd its impact on architecture, planning, and engineering. articular emphasis is given to the subjects of renewable nergy sources and energy-efficient design. Throughout the ook, the authors have simplified and clarified the different echanical and electrical systems and their components, emonstrating the importance of pairing architecture with ie right system from the very beginning. The comprehen-ve coverage ranges from fundamental theory to detailed quipment analysis for each subject area. There are 1300 il-strations and 214 tables of standard data throughout the 336-page volume.

ndustrial Lighting Systems *by John P. Frier and Mary E. Gaz-y Frier. New York, McGraw-Hill Book Company, 1980. 336 pp., 21.50.*

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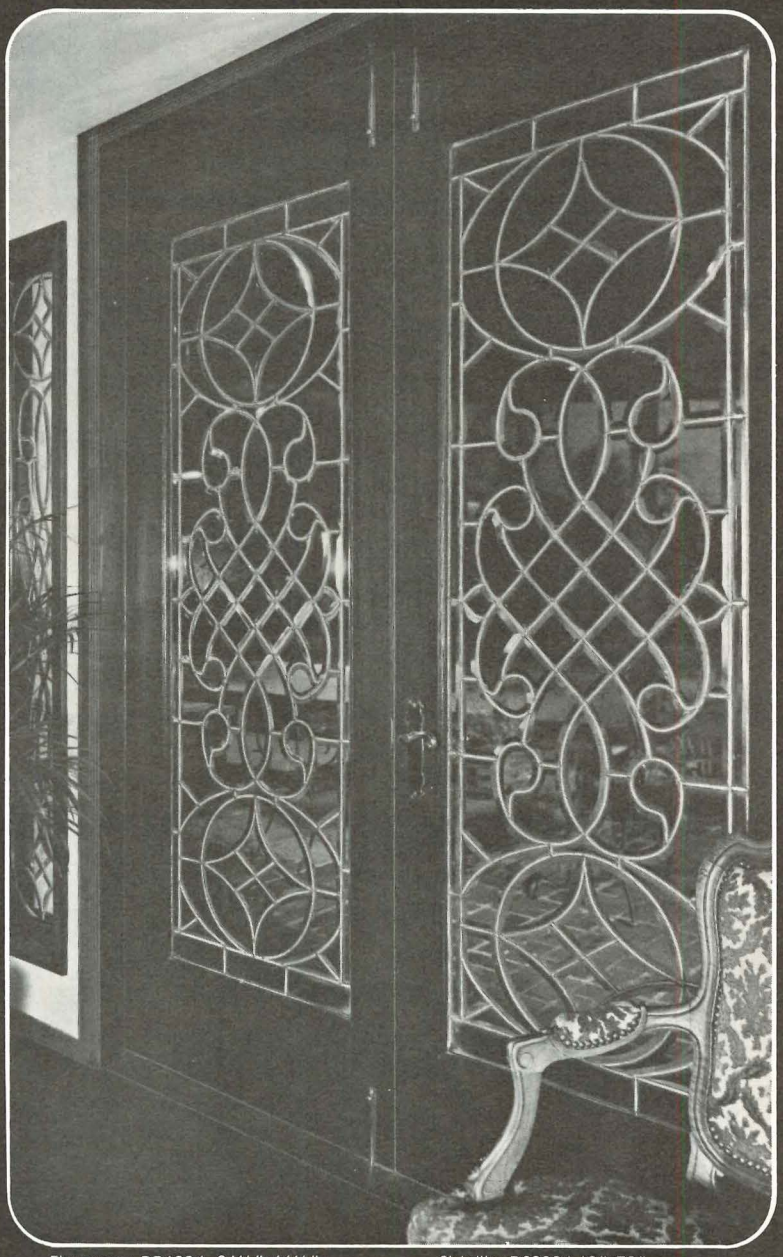
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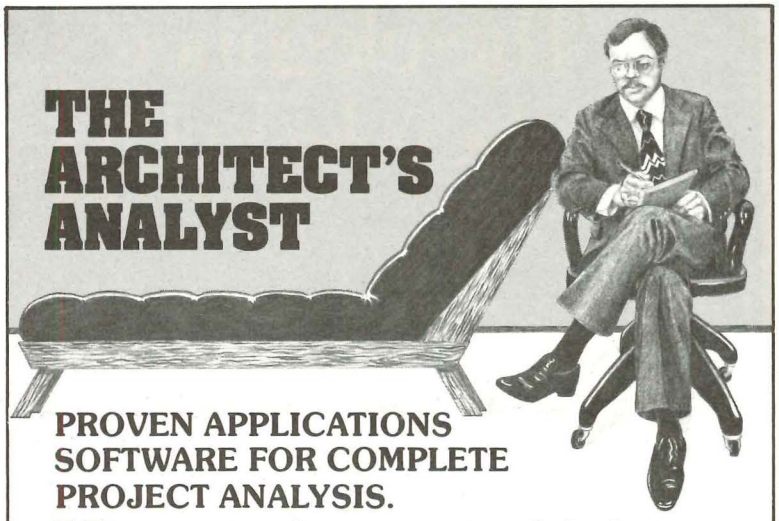
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THE ARCHITECT'S ANALYST

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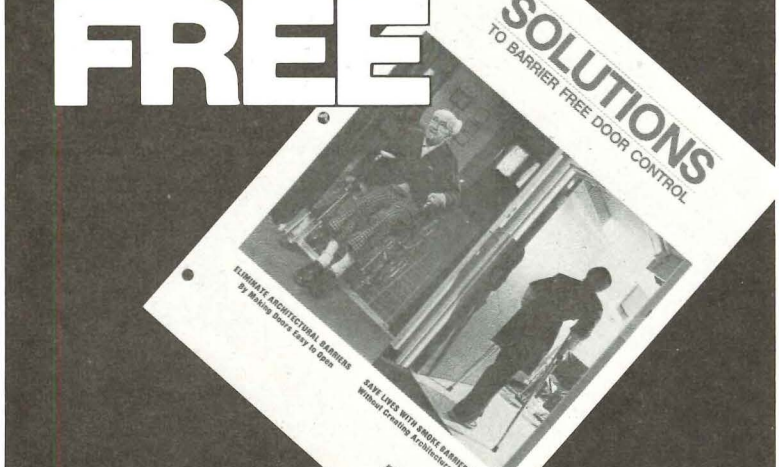
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Books continued from page 109

This annotated bibliography was compiled by an art bibl rapher and reference librarian to meet the widely diverg information needs of all of those concerned with hist preservation, from architects, builders, and designers lawyers, developers, planners, and involved citizens. Four chapters cover separate topics dealing with types of infor tion sources, such as general reference works, historical current overviews, description and documentation, gu books, and periodicals. Within each topical chapter, citat to published sources of information are grouped under cialized subjects. This arrangement, and the inclusion detailed subject index, help the user locate specific mat throughout the volume.

Looking at the White House *by William Ryan and Desm Guinness. New York, McGraw-Hill, 1980. 196 pp., $24.95.*

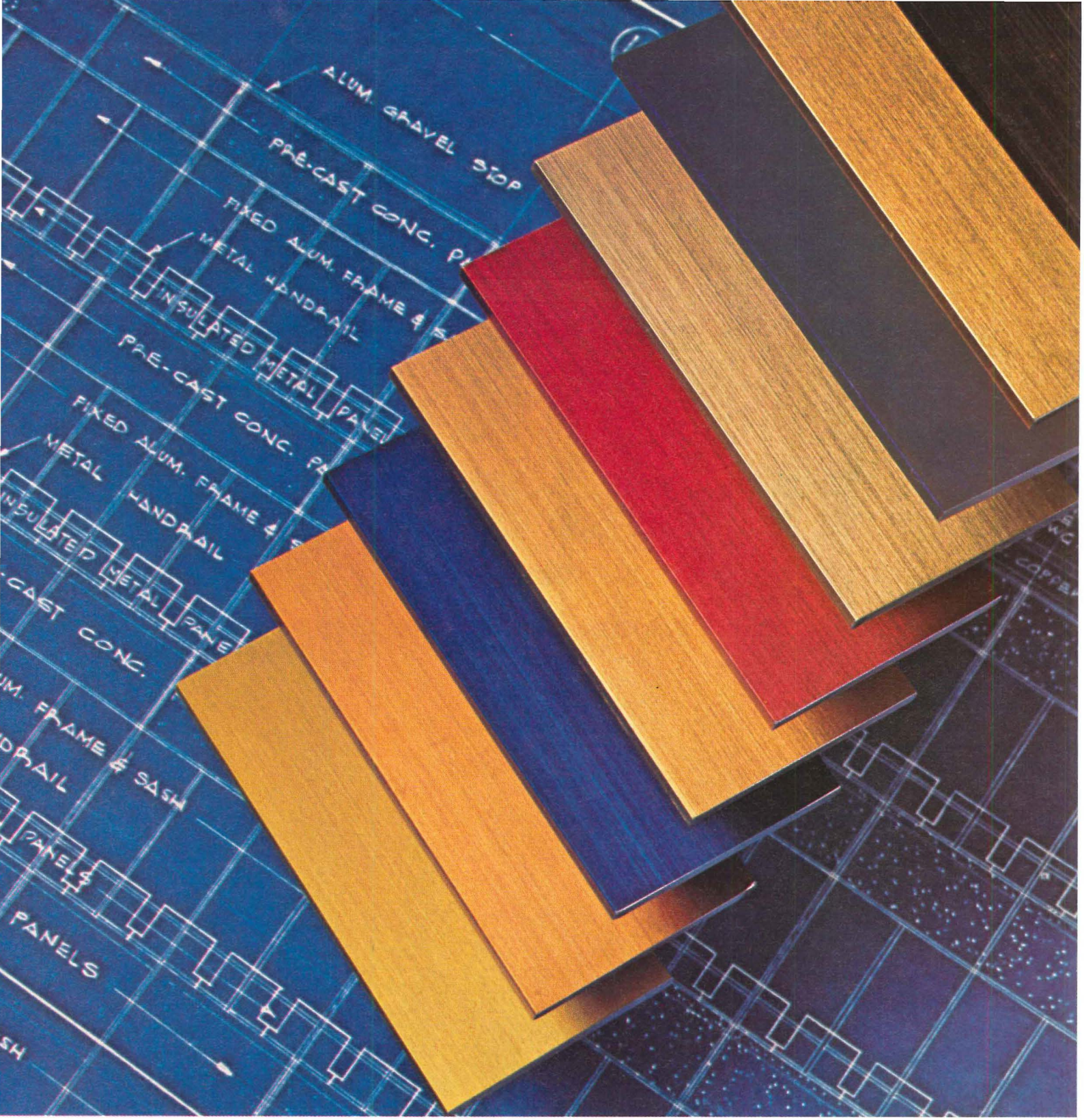
This new volume, lavishly illustrated with color and bl and-white photographs, watercolors, and line drawings is first architectural history of the White House ever to be p lished. The book describes the design, construction, present condition of the house, detailing its history from time of its design competition through its reconstruction a the burning in 1812, its renovation after the Civil War, a tional renovations in 1902 and 1907, the Truman restora in 1948, and the Kennedy interior restoration in 19 Throughout, many quotations from original sources pro factual background and capture the spirit of the time, sh ing how prevailing social, economic, and aesthetic patt strongly influenced the direction of the work. In addition, many myths and speculations surrounding the house's o nal design and subsequent alterations are clarified by pr ously unpublished documentary evidence.

A Field Guide to American Architecture *by Carole Rifk New York, New American Library, 1980. 320 pp., $19.95; $9 paper.*

Called by William H. Whyte "a splendid guide and a companion for walking through American cities," this volume traces the development of architectural styles in U.S. from the simple wood houses of the 17th Century to steel and glass towers of the early Modern period. The b describes the historical background, construction mater and basic structures and styles. The chapters are arran first by building function or type, and then by the spe architectural period. Technical terms are clearly defined, the text is illustrated with examples of drawings taken ma from the Historic American Buildings Survey and the toric American Engineering Record.

Splendid Survivors, *prepared by Charles Hall Page & Assoc for the Foundation for San Francisco's Architectural Heritage, text by Michael R. Corbett. San Francisco, California Living Bo 1980. 288 pp., $32.50; $19.95 paper.*

The urban renaissance of today is heralded in this pioneer appraisal of one of the nation's favorite cities—San Franci The first survey of a predominently 20th-Century metrop tan area, this volume stands as both a celebration and a cri inventory of that landscape. More than 800 buildings—f banks and department stores, to theaters and hotels, eve alleyways and ornamental streetlights—are all evaluated cording to their architectural, historical, environmental, cultural merit. As today's urban scene becomes an incr ingly heated battleground among real-estate developers, officials, citizen groups, and corporate interests, it is bo such as this that will enable both the professionals and public to take a hard look at what still remains to be saved. the historian, architect, urban planner, and environmenta the book is an invaluable blueprint for action and a pro sional tool; it is a thorough resource of historical and plann information, profusely illustrated with more than 500 ph graphs and 40 maps and diagrams.



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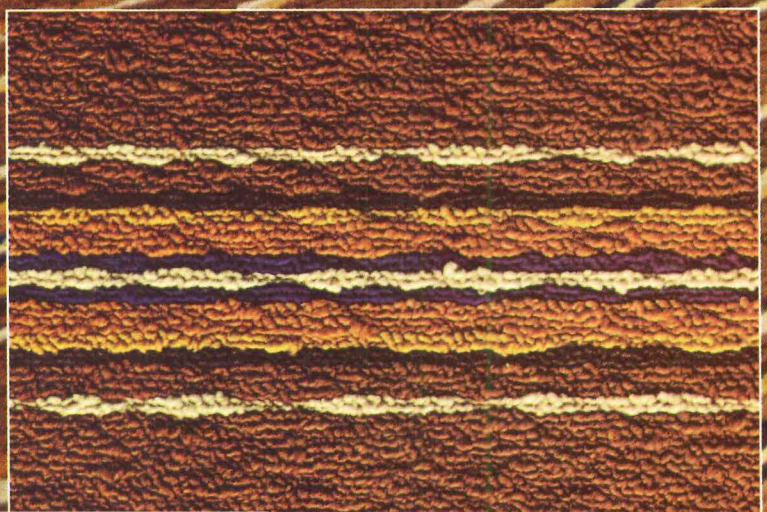




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The leading contract carpet fiber brand.



Carpeting of Antron® III resists dirt better, stays new-looking longer.

The secret: Unique hollow-filament fibers.

Antron* III nylon is the only carpet fiber with a rounded hollow-filament structure. So it resists dirt better than other nylon fibers. The smooth exterior shape of Antron® III minimizes dirt entrapment, and the hollow-filament structure scatters light to make dirt less apparent. So the carpet stays new-looking longer than ordinary nylon carpeting.

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Magnification 250X of Antron® III nylon showing hollow filaments and round, anti-static filament.

Antron® III controls static shock. Gives you protection that won't wear out or shampoo out—because it's built right into the fiber.

That's why Memorial Hospital of Phoenix used carpeting of Antron® III nylon to cover over 58,000 sq. ft. in its new building in Phoenix, Arizona. And why your next contract carpet should be Antron® III nylon.

Write for Specifiers' Information Kit:
Du Pont Company
Room 37230 A
Wilmington, Delaware 19898

Installation: Memorial Hospital of Phoenix.
Architect: Varney, Sexton, Sydnor Associates, Phoenix, Arizona.
Interior Designer: Don Beams, A.S.I.D., B. Eric Bron & Associates, Phoenix, Arizona.
Flooring Contractor: Bruce Floors, Phoenix, Arizona.

*Du Pont registered trademark for nylon fiber. Du Pont makes fibers, not carpets.

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Introducing StarShield™ The Ultimate Roof System.

Ultimate watertightness.

The StarShield system's advanced design makes it virtually impossible for leaks to occur. Seams are approximately 3" above the panel surface to minimize contact with standing water, melting snow and ice.

The use of sliding clips eliminates through-fasteners at panel sidelaps and allows the panels to "float". This means the end of leaks caused by elongation of fastener holes due to panel expansion and contraction.

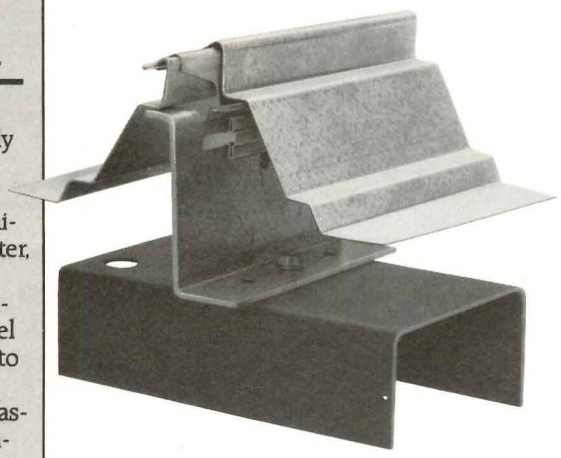
Increased thermal efficiency.

The StarShield panel clips also help reduce energy costs by providing a 1" clearance between the roof panels and purlins. This minimizes heat loss due to compressed insulation.

StarShield panels with 4" batt insulation can provide a tested U factor of .0742 (Btu/Hr. Ft^2 °F.). This is almost twice as efficient as metal roof panels fastened directly to purlins on 6" fastener spacings.

Ultimate durability.

StarShield roof systems are constructed of long-lasting 24 gauge steel for years of worry free protection. Their transverse ribs are designed to prevent oil-can popping, flutter and damage caused by roof traffic.



Specially-designed clips, which attach securely to purlins with only one screw, allow the roof panels to expand and contract with temperature variations. A 1" clearance between the roof panels and purlins is provided to minimize heat loss due to compressed insulation.

Streamlined construction saves time and money.

StarShield roofs are a builder's best friend. Owners like them too, because of the reduced on-site labor costs.

StarShield clips and interlocking panel edges permit the entire roof to be installed prior to seaming. This gives the builder flexibility in scheduling people and equipment, plus it gets your building under roof faster. Panel seaming is also greatly simplified. Sidelap sealant is factory-applied, assuring a continuous, watertight seal.

And, the StarShield seaming machine requires no special scaffolding at the eave or ridge. A hand crimping tool is provided to start the seaming process.

The interlocking panel design also eliminates "false" seaming, which is possible with other standing seam roof systems.

Self-aligning components, self-drilling fasteners and factory-notched panel ends further speed the installation of your StarShield roof system.



The high speed motorized seaming machine requires no special scaffolding at the eave or ridge.

For new or existing buildings

StarShield roof systems offer great flexibility of application. They're equally at home in new or retrofit installations. The only requirement is that you ha a surface on which to fasten the clips. Bar joists, wood framing, even decking will suffice. The StarShield clip is die-punch in three places to satisfy virtuall all fastening situations. StarShield roofs can even be installed directly over existing roofs in some cases. The 1" standoff feature allows extra insulation to be placed between the old and new roof surfaces.

Ultimate appearance.

The classic appearance of a standing seam roof is further enhanced by the StarShield system's absence of exposed fasteners along the panel sidelaps. Accessories such as facade guttering, vents and roof jacks are designed to complement the system, not detract from it.

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Your Star Builder has full deta for specifying StarShield roof systems on your next building project. Let us help put you in touch with him today.

Call toll-free 800-654-3921.
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Or write Star Manufacturing Company, Box 94910, Oklahoma City, OK 73143.

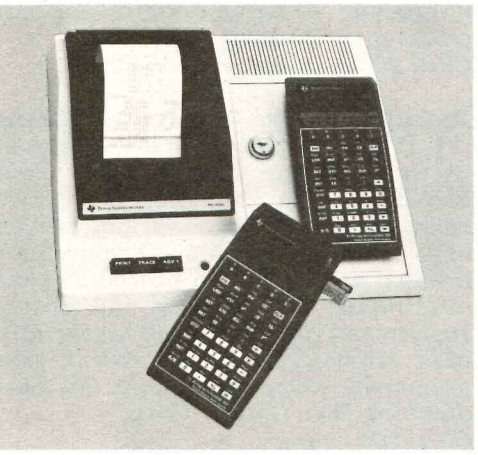
STAR® BUILDING SYSTEMS

Circle No. 356

Products and literature

The following items are related to the technics article on small-scale word/data automation. They are grouped here for the reader's convenience.

Electronic design aids Products

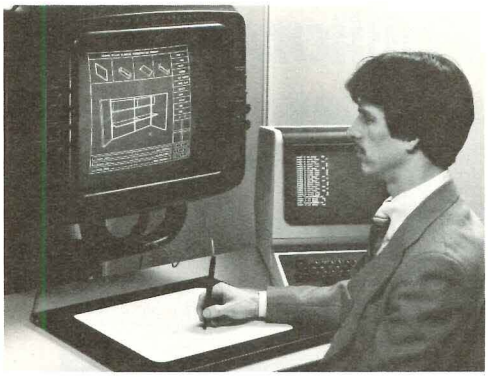


The TI-59 programmable computer for business, science, and engineering professionals offers up to 960 program steps or up to 100 memories to work with. It uses solid-state software, a tiny plastic module that plugs into the calculator, with 25 programs available. There are blank magnetic cards for writing personal programs. The computer operates for approximately 2½ hours before it needs to be recharged. It can also be used during recharging. Texas Instruments, Inc.
Circle 100 on reader service card

LOGIC (Lennox Objective Guide to Installation Comparisons) computer-aided HVAC analysis provides several programs to determine energy requirements, compare alternative systems, assess economic impact, identify conservation opportunities, analyze residential thermal loads, or evaluate solar applications. The programs are available on time-sharing networks of United Computing Services and Control Data Corp. Lennox Industries, Inc.
Circle 101 on reader service card

Design and drafting software. GS-2000™ software, part of the AD/380™ system, offers geometric design capabilities based on two-dimensional and three-dimensional geometric data manipulation. According to the manufacturer, this enables the architect to view a design from various perspectives. Its handling of repetitious detail work frees the architect for design work. Auto-trol Technology Corp.
Circle 102 on reader service card

The Model 9222Q electrostatic printer/plotter is 22 in. wide and has a Quadrascan® writing head consisting of four offset rows of styluses. Dots overlap about 50 percent, producing a smooth line. The printer/plotter prints up to 560 lines per minute and plots 1.5 in. per second. Benson-Varian, Inc.
Circle 103 on reader service card



Computer systems for facility design. Herman Miller has initiated time sharing to transfer its computer software capability to professionals involved in facility design. Leased terminals connected with the firm's computer have access to two programs: Communication Interaction Analysis℠, providing information about the communications network within an organization; and Activity Equipment Analysis℠, a comprehensive detailing of workers' equipment requirements. Herman Miller.
Circle 104 on reader service card

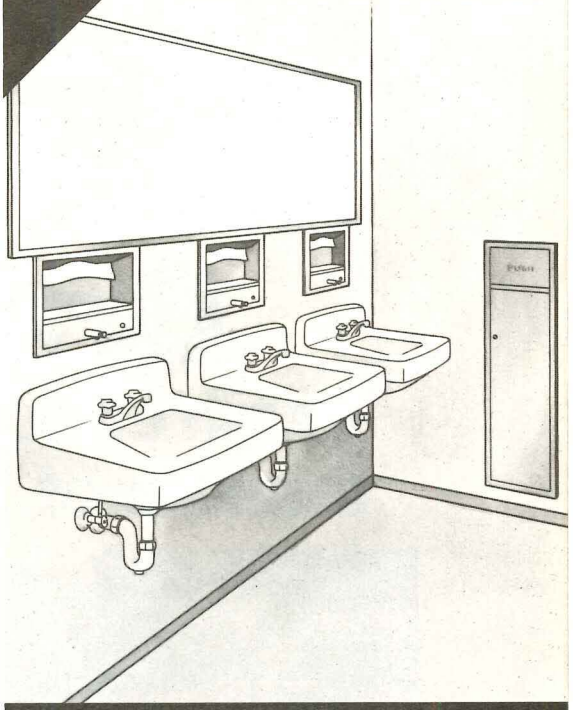
Literature

Burroughs RIII Word Processors brochure outlines the text editor systems offered at various prices, depending on the level of performance required. The four-page brochure describes three systems, explains options, and provides systems specifications. Redactron Corp.
Circle 200 on reader service card

Masterspec 2 is divided into the 16-division format of the Uniform Construction Index (UCI). It is available in
[*Literature continued on page 116*]

washroom directions

The Space-Saving Boys' Room for Schools and Educational facilities



WASHROOM DIRECTIONS are reference manuals designed to guide specifiers in selecting the right Parker equipment for use in each of a wide variety of washroom categories. The stainless steel units in this washroom were taken from a WASHROOM DIRECTIONS checklist of essential and optional units for use in a space-saving boys' washroom in a school. They include:

- WASTE RECEPTACLE—No. 602
- TOWEL DISPENSERS, SOAP DISPENSERS & SHELVES—No. 665
- MIRROR—No. 3020S

If space-saving units are not required, WASHROOM DIRECTIONS also provides checklists for recessed, surface mounted, barrier-free and concealall washroom designs. Send for your WASHROOM DIRECTIONS and find out how easy specifying Parker units can be, whatever direction your washroom plans are taking.

charles parker

290 PRATT ST., MERIDEN, CT 06450
TEL: 203-235-6365

Literature continued from page 115

two editions, one for architects and general engineering firms, and one for mechanical/electrical consulting firms. There is the option of obtaining it in Diskette Libraries in any version that the subscriber has in Reference Library form. A 12-page brochure describes Masterspec 2 and its many options that will adapt it to the needs of a particular office. Products Systems for Architects & Engineers.
Circle 201 on reader service card

Static and dynamic analysis of structures. This program is a timesharing software application of economic analysis and design of building structures subjected to dead load, live load, thermal shock, and earthquake load. It calculates stresses, deflections, moments, reactions, and sections. Newsletters and an application memo describe the program. Boeing Computer Services Co.
Circle 202 on reader service card

2200 Series computers, from a desk-top model to a system that handles several processing jobs at the same time, are described, along with optional equipment, in an eight-page brochure. Their use in various types of business is discussed in a problem/solution format. There is also a section on evaluating a computer system. Wang.
Circle 203 on reader service card

Minicomputer hardware/software catalog. Describes the Point 4™ computer, Mighty Mux™ Direct Memory Access multiplexer, and Micro-N Processor hardware and some of the software systems available for use with the computers. Educational Data Systems.
Circle 204 on reader service card



Integrated Information Systems permi one operator to handle data processing copying, and printing through a single work station. A six-page brochure describes the way in which computers are changing office information handling improving communications, and increasing productivity. Wang.
Circle 205 on reader service card

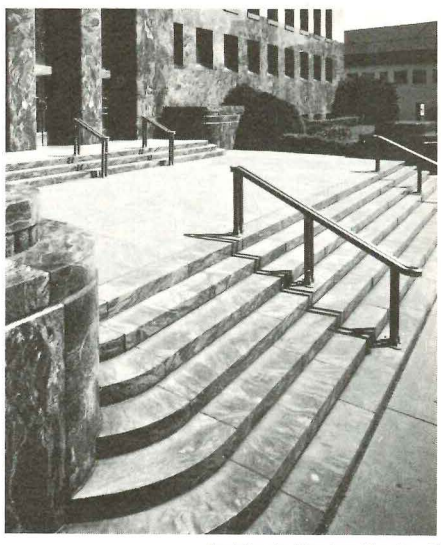
Rational Energy Analysis Program (REAP BX™) is described in a four-page brochure. Using local weather data REAP BX can calculate the HVAC energy consumption of various heating and cooling combinations. The program is based on recognized procedures and information for building and energy analysis and is programmed in extended basic language, for use with a programmable calculator. Carrier Air Conditioning Div., Carrier Corp.
Circle 206 on reader service card

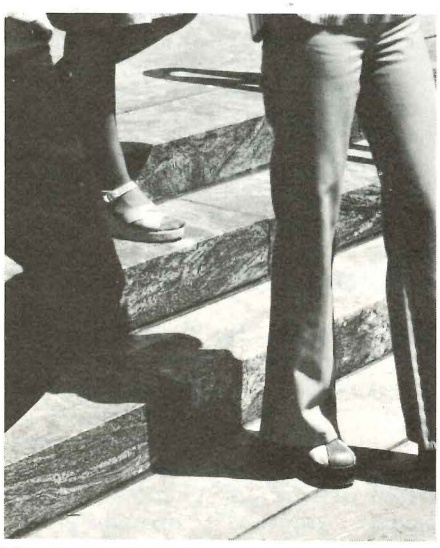
Building design and operation software. Timesharing software applications aid in design and operation of energy-efficient buildings, both new and existing construction. The program calculates annual energy use forecasts life cycle costs, return on investment payback period, cash flow, and profit and loss. It provides for economic analysis and costing of solar installations. A package of newsletters and application memos describes the program. Boeing Computer Services Co.
Circle 207 on reader service card

IBM 6/420 information processor added to the Office System 6 line, offers flexibility and speed in performing document assembly, global search exchange, and field update, according to the company. One-page or multipage documents can be assembled without operator assistance. Global search exchange enables characters or phrases to be searched, either by word or by character, for purposes of addition, deletion, or exchange. Field update permits files to be updated and maintained automatically. International Business Machines Corp., Office Products Div.
Circle 208 on reader service card

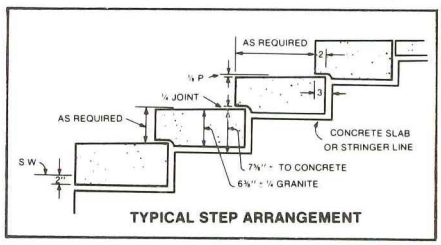
'A Guide to Evaluating Small Business Systems,' a 12-page brochure, suggests questions to ask in considering a com-
[*Literature continued on page 118*]

Granite.
Tough enough to take the thunder of 10 billion feet.

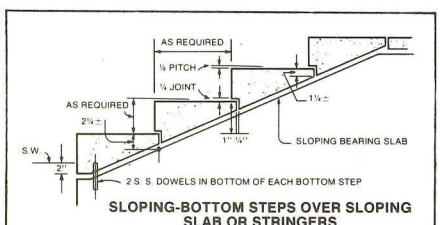




Architect: Tinsley Higgins Lighter & Lyon, Des Moines, IA



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What else but granite can take 38 years of wear and weather without fading, staining, or showing measurable wear? That's what made Cold Spring granite the ideal choice for the Banker's Life Insurance Building when it was built in Des Moines, Iowa, in 1939. And that same unique combination of beauty and unsurpassed durability make it ideal for today's floors, facades, core walls, steps, malls and walkways — wherever you need maximum durability that's virtually maintenance-free.

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Maximum light-Maximum savings MAXI-MISER™ II SYSTEMS

General Electric's fluorescent lighting systems let you have the light you need and save energy, too.

Now you can have the good lighting you need to help maintain worker productivity, safety and morale – and still reduce your lighting energy costs by as much as 21% with exclusive GE Maxi-Miser II Systems. For all three popular types of fluorescent lighting, GE offers a specially designed system of energy-saving lamps and high performance ballasts. Each designed as a system – tested as a system – to perform as a system that saves energy with no loss of light.

F40 Maxi-Miser II System. Two energy-saving General Electric F40 Lite White™ Watt-Miser® II 4-foot fluorescent lamps operating on the exclusive General Electric high performance Maxi-Miser II ballast for F40 lamps. Saves up to 19% in energy and produces more light in most fixtures than standard systems. The money-saving replacement for higher wattage, standard lamps and ballasts in offices, schools, stores.

NEW F96 Slimline Maxi-Miser II System. Two 8-foot Slimline Lite White Watt-Miser II lamps and a Maxi-Miser II high performance ballast. Reduces wattage by as much as 21% yet maintains the same light output as standard systems. Low cost, high performance lighting for stores and manufacturing areas.

NEW F96 High Output Maxi-Miser II System. Two 8-foot Lite White Watt-Miser II High Output lamps and a Maxi-Miser II high performance ballast. Uses up to 42 fewer watts. Yet provides virtually the same light as standard 8-foot fluorescent lamps on a standard ballast. And cooler operating Maxi-Miser II ballasts last longer, reduce ballast maintenance costs. The ideal system for lighting industrial areas.



Learn how these full light output energy-saving Maxi-Miser II Systems can help you save on lighting energy costs. Ask your GE lamp sales representative for our free Maxi-Miser II Systems brochure. Or call toll-free (800) 321-7170. In Ohio (800) 362-2750. General Electric Company, Dept. C-011/PA7, Nela Park, Cleveland, Ohio 44112.

(TM) Trademark of General Electric

Maximum light with maximum savings is based on total owning and operating costs for new, medium or large installations, and is a function of the quality of fixtures, installation and wiring costs, and lifetime expenses. Other lamp/ballast combinations may individually provide greater energy savings but with some reduction in light.

We bring good things to life.

GENERAL ELECTRIC

C-011

Literature continued from page 116

puter system. Information about the vendor, the software, the hardware, and the total system should be obtained. Financial considerations are also evaluated: whether to rent, lease, or buy the equipment. Data General Corp.
Circle 209 on reader service card

Computer systems brochure describes and illustrates Apple II personal computer and Apple III professional computer. Special features of each are outlined. Manuals are available to help the user learn to write programs. Software libraries include programs in BASIC, UCSD Pascal™, FORTRAN, PILOT, and others. Apple Computer.
Circle 210 on reader service card

MCAUTO **engineering applications** brochure explains computer services consisting of both programs and personnel available for solving engineering problems. Access is by means of computer, teletypewriter, or display terminal. Among the programs are those for mechanical engineering, project management, and structural engineering. The 12-page brochure defines the scope of many of the programs offered. McDonnell Douglas Automation Co.
Circle 211 on reader service card

Construction analysis, design, and management programs. The Integrated Design Support System is made up of several program groups for minicomputers: project management or construction management; structural analysis and design; construction accounting; professional accounting; and real estate development appraisal. Each program is outlined in a 16-page brochure which tells the functions performed, the type of firms for which they are designed, and special features. Structural Programming, Inc.
Circle 212 on reader service card

Architectural/engineering typing system. Specialized typing, such as general conditions, specifications, bid forms, and reports, is stored on memory disks. For new projects, only changes need to be typed in. These changes are integrated with the information already on the disks and as many originals as are needed are printed up rapidly. The master file remains intact. MASTERSPEC® is available on disks to be used with the A/E system. Lanier Business Products, Inc.
Circle 213 on reader service card

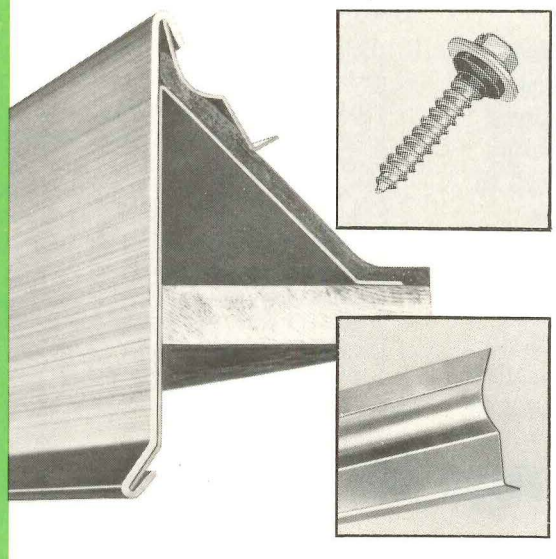
Civil Engineering for the Construction Industry (CE/CI) is a broad range of computer applications for the construction industry developed in cooperation with architectural/engineering firms. The company says the programs incorporate the latest industry standards for code compliance. Among the many areas covered are structural engineering, mapping and surveying, mechanical, electrical, environmental and energy analysis, construction management, graphics, engineering busines applications, and construction specifica tions. The service is outlined in a six page brochure. Cybernet, Control Dat Corp.
Circle 214 on reader service card

Solar energy calculation programs fo the Hewlett-Packard HP41C calculato cover solar gain, collector efficiency, ac tive and passive systems, and weathe data cards. All programs, in the form o prerecorded magnetic cards, are liste in a catalog. Solarcon, Inc.
Circle 215 on reader service card

The Wide Plotter, 36 or 42 in. wide, fo high-speed electrostatic plotting, ca produce E-size drawings in as little as 2 seconds. It can be used in computer aided design, geophysical plotting mapping, and business graphics. A six page brochure discusses models avail able and their specifications, the Versa plot™ software, and includes a mode selection chart. Versatec.
Circle 216 on reader service card

A medium-speed impact printer pro duces words, numbers, and graphics b means of a series of dots. It can produc plot drawings, graphs, charts, and an other image that can be displayed on CRT from computer commands, ac cording to the manufacturer. Th printer/plotter is described and illus trated in color in a six-page brochur [*Literature continued on page 120*]

Will the perfect Gravel Stop please stand up? Always!!!



And what could be more perfect than a system that grips the roofing felts so tightly that there's never been a reported failure in over 20 years and over 10,000 installations. Perfect means permanent and that's what you get in the HICKMAN GRAVEL STOP SYSTEM. The perfect clamp attached with the perfect fastener to create the perfect system . . . for permanent waterproof protection that's guaranteed for 5 years. See us in Sweet's (7.3 Hi).

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ALUMINUM CONSTRUCTION PRODUCTS
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P.O. Box 15005 ☐ Asheville, N.C. 28813 ☐ (704) 274-4000

Circle **No. 331** on Reader Service Card



Above: Bullock's Department Store in San José, Cal. Note Grinnell Quick Response Sprinklers installed in a sprinkler line suspended from a cable below the fabric roof. Photo courtesy of Virgil R. Carter, Architect, Environmental Planning & Research, Inc.
Right above: Grinnell's Model F931 Quick Response Sprinkler.

The sky's the limit.

Grinnell® Sprinklers Can Meet the Challenge of Your Most Challenging Designs.

When Bullock's in San Jose, California's Oakridge Mall installed the first fabric roof ever used in a department store, they chose Grinnell sprinklers.

The problem that faced the owners, the architects and the insurance company was how to provide needed sprinkler protection that could respond quickly and effectively to a fire when the sprinkler lines were suspended from cables as much as 17′ below the fabric roof.

The roof structure, with its Teflon* coated fiberglass construction, made conventional pipe hangers impossible. The only practical manner to support the sprinkler system was from the suspension cables which were an integral part of the overall building design.

This innovative design called for an innovative technology, which was met by the use of Grinnell's Model F931 Quick Response attachment. This sprinkler combines the time-tested Duraspeed Sprinkler with an additional heat detection device sensitive to a temperature rate of rise at 20°F. per second.

The Quick Response device attaches in a matter of seconds to a Duraspeed solder-type sprinkler. Thus, standard pendent sprinklers as well as horizontal sidewall models were available for use in this overall design.

This unique fast-acting sprinkler attachment, listed by Underwriters Laboratories, proved its capabilities in a test program witnessed by the owner's representatives and representatives of the insurance authorities.

Not only did the sprinkler attachment prove to be effective in the laboratory test, but it also demonstrated the flexibility needed to adapt to the demands of the structure's unconventional roof lines.

When it comes to sprinkler designs from the traditional to the avant-garde, Grinnell has the technology to provide sprinkler protection to match your most demanding design requirements.

For additional information, please write:
Grinnell Fire Protection Systems Co., Inc.
10 Dorrance St.
Providence, R.I. 02903

*TM DuPont Co.



GRINNELL
GRINNELL FIRE PROTECTION SYSTEMS COMPANY, INC.
Protecting Life and Property Since 1850

Circle **No. 328** on Reader Service Card

Literature continued from page 118

that provides both functional and general specifications. Printronix.
Circle 217 on reader service card

Other products



Howard N. Kaplan

Floor and deck lights in panels consist of two-way reinforced concrete grids with approximately 6-in.-square openings for glass. Panels are available factory finished and completely glazed, or they can be formed over openings at the building site. Shown is an installation at the Tri-State Office Building (P/A, June 1980, p. 88). Circle Redmont Corp.
Circle 105 on reader service card

Motifs high intensity discharge (HID) lighting is made up of four styles: a round pendant with a choice of mounting styles; a 6-ft-high cylinder; a square pendant; and a 20-in.-high cabinet-mounted cylinder. Motifs project light to the ceiling for visually comfortable indirect illumination. Gardco Lighting, Gardco Manufacturing, Inc.
Circle 106 on reader service card

Redwood lighting and site furnishings include wall-mounted, post-mounted, and bollard lighting in several heights and styles. Site furnishings are benches, planters, and litter receptacles. All are constructed of laminated, kiln-dried California redwood, which is naturally resistant to decay and insect attack. The wood is treated with a clear water repellant to prolong its life further. Columbia Cascade Timber Co.
Circle 107 on reader service card

Outdoor/indoor folding leisure chair has a solid teak frame with acrylic fabric slip-on seat and back. Joints are doweled and glued, and the wood has a hand-rubbed oil finish. Hardware is stainless steel. The fabric backrest is designed to tilt to accommodate the user's changing positions. Teak Marine, Inc.
Circle 108 on reader service card

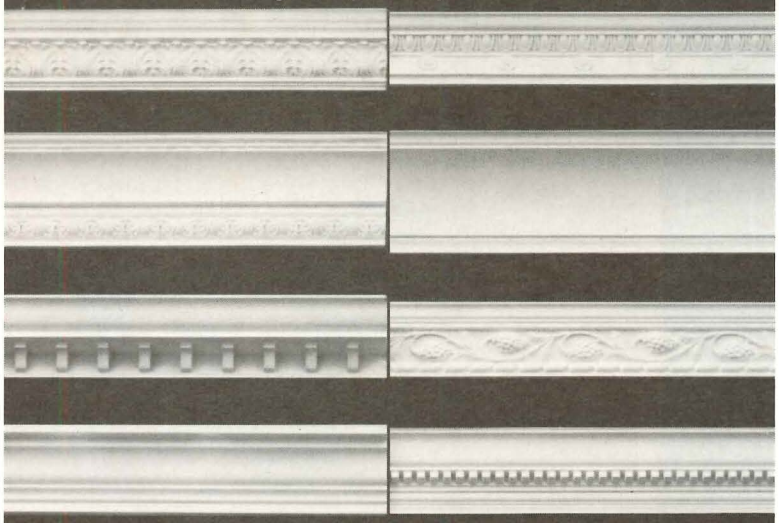
Gemini™ appliqué films have two pressure-sensitive sheets on a single release liner, allowing the user to make two printed appliqués from a single unit. The sheets feed easily in all plain-paper copiers, according to the manufacturer, and save approximately 25 percent of the cost of regular appliqué film. Stanpat Products, Inc.
Circle 109 on reader service card

Adhesive #54 adheres to a wide variety of surfaces, such as rubber, urethane, vinyl, metal, concrete, and wood. It can be used on flooring, roofing, and mechanically reinforced seams, where adhesion is more important than strength. The one-component product is easy to handle and has an open life of at least two hours. According to the manufacturer, Adhesive #54 resists loss of adhesion after exposure to high humidity, water, and thermal cycling. Synthetic Surfaces.
Circle 110 on reader service card

Thermal-door upward rolling door is insulated with ¾-in. rigid polyurethane foam between galvanized steel layers to conserve energy. The door has a U-value of .2. All sides are weather-stripped to provide added thermal protection. The "Thermal-door" can be used in interior locations, as well as large exterior openings, to reduce air flow into air-conditioned spaces. Atlas Door Corp.
Circle 111 on reader service card

The Collection.

Focal Point, the unquestioned leader in architectural accent through modern polymers, presents its award-winning collection of cornice mouldings and other accents.
Delicate beauty...incredible strength.
Absolute integrity...pre-engineered installation.

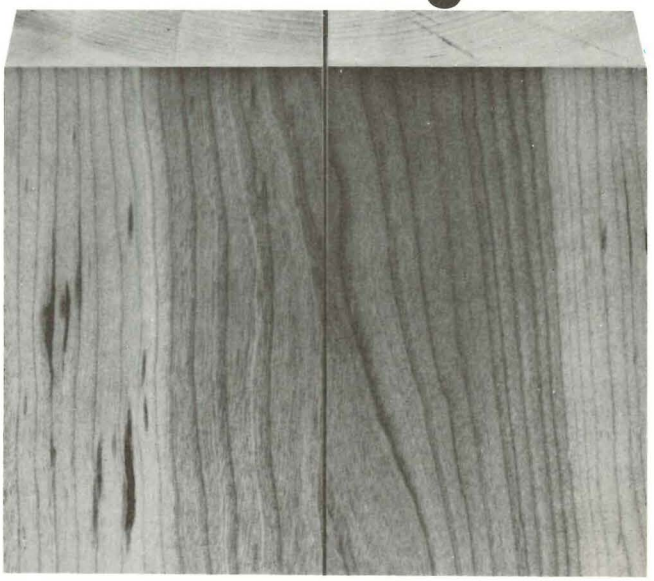


There's far more to The Collection than moulding. Focal Point has prepared a catalogue featuring its recessed domes, niche caps, medallions, mantels, overdoor pieces, stair brackets and more. Ask for THE COLLECTION.

FOCAL POINT INC.
Dept. R-G 2005 Marietta Rd. N.W. Atlanta, GA 30318 (404) 351-0820

Circle **No. 323** on Reader Service Card

Just like no hinge at all





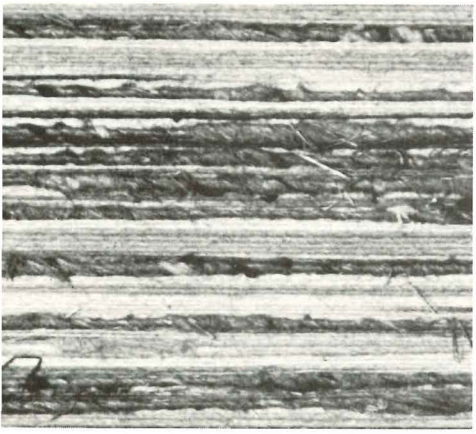
Now you see it. Now you don't!

the SOSS Invisibles

The hinge that hides

Some hinges are decorative. Some are functional. But only one hinge is invisible.
So when the best hinge would be no hinge at all, specify Soss.
Choose from 18 models and four finishes. All models open 180° and disappear when closed.
Complete specifications are in Sweet's. Or, write to MPG Co., Div. of Core Industries Inc, 1 Coreway Dr., Pioneer, OH 43554. Ph: 419/737-2324.

Circle **No. 341** on Reader Service Card



Belgian linen wallcoverings in the CrofterCraft III collection have a Class A flamespread rating in accordance with the ASTM-E-84 Tunnel Test. The 87 natural linen wallcoverings are available paper-backed, in widths ranging from 54 to 54 in., for installation horizontally, vertically, or diagonally. CrofterCraft.
Circle 112 on reader service card

Groundscape landscape and street furniture is made up of precast concrete components that can be combined to form coordinated planters, benches, light standards, waste containers, bicycle racks, drinking fountains, and other accessories. The basic horizontal module is 24″ x 24″ which corresponds to an existing paving stone module. Heights are 3 in., 15 in., and 30 in. Ambiant Systems.
Circle 113 on reader service card

Exspansystem™ is an exhibit display system of chrome steel components, PVC structural connectors, and lightweight panels. The panels are easily assembled without tools, reducing set-up and disassembly time. Panels are 40″ x 30″ and are offered in a variety of coverings. Accessories include light bars, rear projection screen panels, and a triangular table top. A molded storage/shipping case is included. Group Three.
Circle 114 on reader service card

AttendB wall system for office noise control consists of fabric-covered panels and connecting splines. Based on a mineral-fiber board substrate, the panels have a .60 NRC rating. Covering is available in four earthtones. Panels can be installed in new construction directly on studs or gypsum board; in renovation, on existing walls. The panels have a class 25 flamespread rating and an R-value of two. Conwed Corp.
Circle 115 on reader service card

Other literature

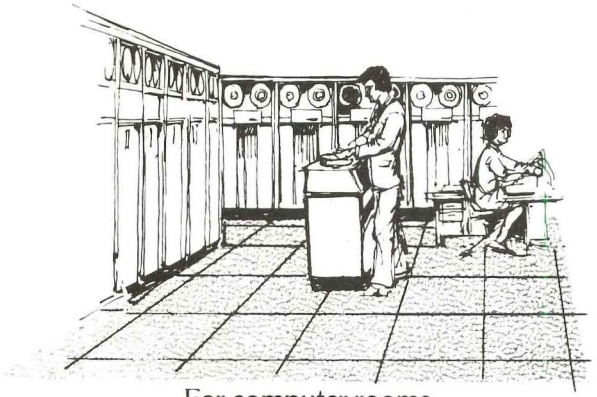
Nervastral® 600 elastic roof flashing stretches to form watertight flashing around any roof contour, according to the manufacturer. Its high degree of flexibility enables it to be formed over complicated shapes. It has high tensile strength, moisture and water impermeability, and resistance to punctures, abrasion, and tears. It is described in a four-page brochure which also provides typical test data. Rubber & Plastics Compound Co., Inc.
Circle 218 on reader service card

Roof deck systems brochure describes the materials used and provides R- and U-values of Tectum II decking having substrate thickness of 2 in., 2½ in., or 3 in. Descriptions of roof deck tile, plank, long-span roof deck, and accessories such as clips and fasteners are included, along with guide specifications. Tectum.
Circle 219 on reader service card

Enviro-Light II outdoor tennis court lighting consists of luminaires of all-aluminum construction, complete with 400- or 1000-watt metal halide lamp. Lenses are $^{3}/_{16}$-in. tempered glass in an aluminum frame. Four-page brochure describes and illustrates the lighting and shows layouts for single and double courts. Suggested specifications are included. Elsco Lighting Products, Inc.
Circle 220 on reader service card

Steel lockers brochure includes acoustically treated, standard, and expanded metal styles. There are single-, double-, and triple-tier models and basket types. Installation details, locks, and hardware are shown. Suggested specifications for the three basic styles are included. Republic Steel, Industrial Products Div.
Circle 221 on reader service card
[Literature continued on page 122]

Now, all the benefits of carpeting... with better static protection than tile.



For computer rooms



For general office areas

Compu-Carpet™

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COMPU-CARPET anti-static carpeting is a unique, high performance floor covering developed specifically for use in modern offices, computer rooms, terminal areas and other static-sensitive environments. Attractive and durable, Compu-Carpet has anti-static properties superior even to those of hard surface flooring.

Compu-Carpet meets IBM resistance recommendations. Since its anti-static properties are inherent in its construction, protection is assured for the life of the carpet. Compu-Carpet carries a 5-year static and wear warranty.

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THE STATIC CONTROL PEOPLE

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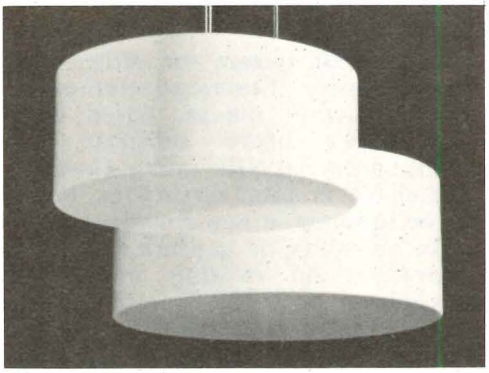
Literature continued from page 121

Vinaflex strip doors brochure describes flexible strip doors that the manufacturer says can provide energy savings of as much as 50 percent. Elimination of swing doors reduces maintenance costs. The strip doors can be used as environmental separations, for outside doors, and for walk-in freezers and refrigerators. Cool Curtain, Inc.
Circle 222 on reader service card

Built-up roofing specifications brochure covers cold process, hot process, and membrane waterproofing. It discusses application methods for the different types of decks, using both hot and cold processes, and reroofing procedures. Flashing detail drawings and descriptions are included. The Flintkote Co.
Circle 223 on reader service card

Precast concrete components shown and described in a six-page brochure include roof slabs, tongue-and-groove floor and roof planks, and structural units such as columns and beams. Insulation, U-factors, acoustic data, and load tables are provided. Also shown are mausoleum crypts made up of modular, interlocking units. DUWE Precast Concrete Products, Inc.
Circle 224 on reader service card

Plumbing fixtures and fittings. Full-color, large-format, 12-page brochure illustrates several styles of bathroom, powder room, and kitchen plumbing fixtures some of which are shown in typical settings. Fittings included are washerless styles, both single-lever and double-handle types. Chart shows choice of standard and premium colors available for fixtures. American-Standard, Inc.
Circle 225 on reader service card



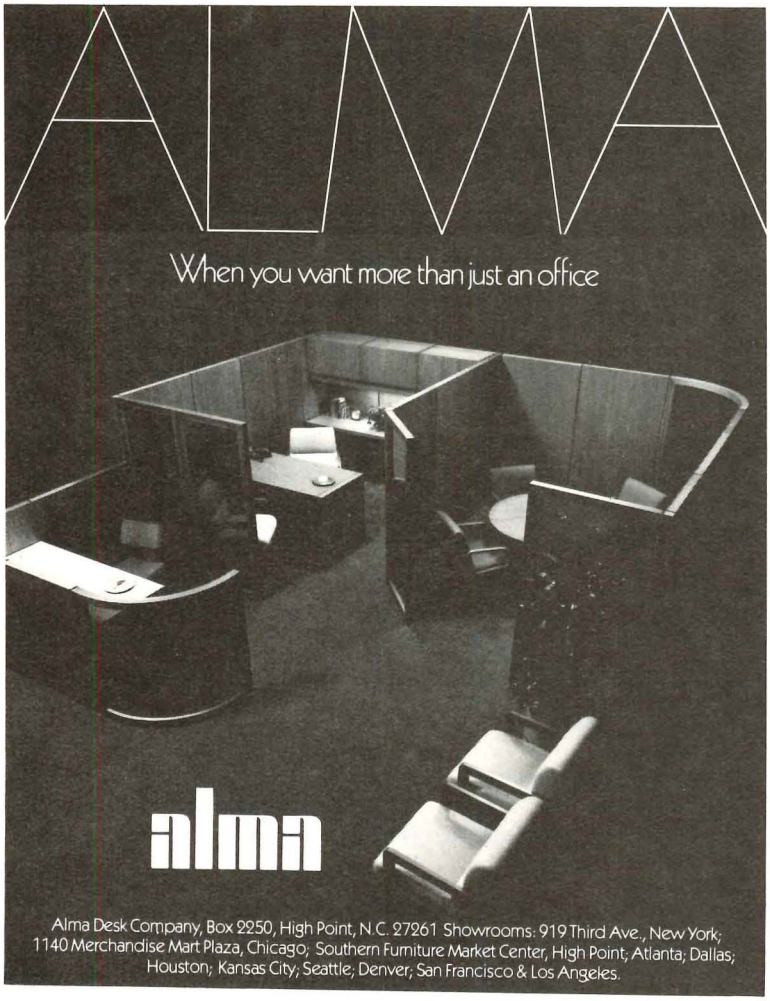
'Lighting for the 80s; making less do more,' is a 24-page catalog featuring design specifications for SPI lighting fixtures. New models and design changes are included. Freestanding units, task lighting, fixed lighting, and mounting accessories are offered. McGraw-Edison Co., Area Lighting Div.
Circle 226 on reader service card

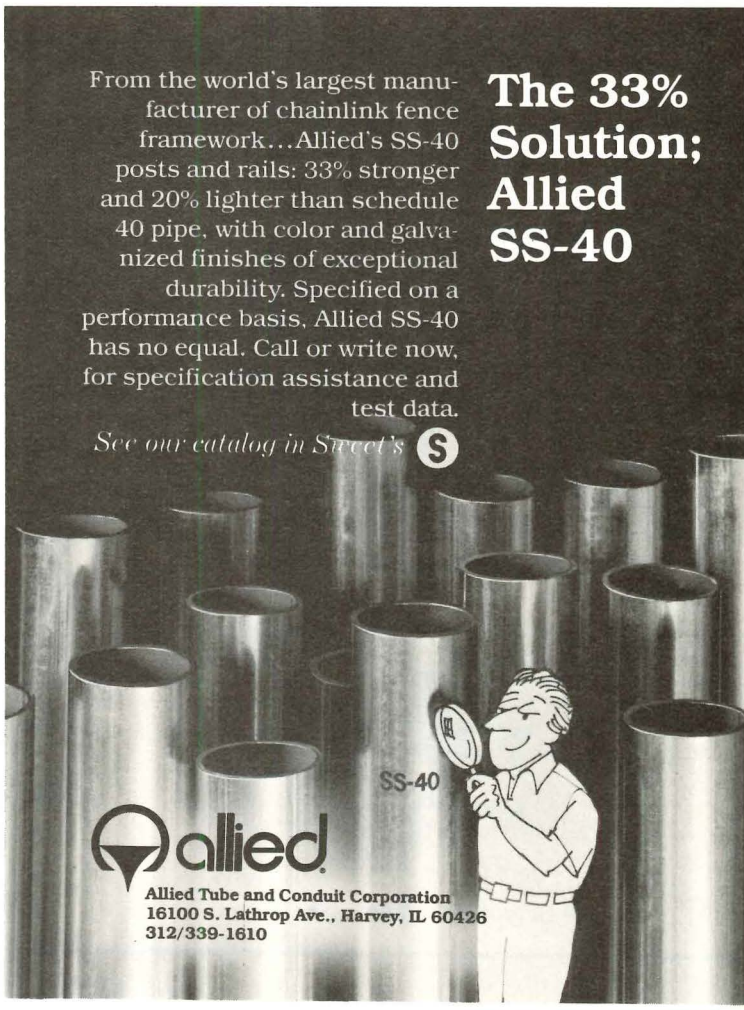
The Borning Bed for hospitals is used in family-centered maternity care. It allows the mother to remain in one roor throughout the hospital stay. It serve functions of labor bed, birthing chai delivery table, and post-partum bec eliminating the need to transfer a pa tient from room to room. It is fully pow ered and UL listed, according to th manufacturer. A six-page brochure de scribes the bed and shows its various po sitions. The Borning Corp.
Circle 227 on reader service card

Paver support systems transform roo areas into terraces, patios, or balconie Undersurface drainage is built into th system to prevent water standing on th surface. The roof membrane is pro tected by the support system. Data shee shows various methods of installation suggests typical applications, and in cludes paver specifications. Wausa Tile.
Circle 228 on reader service card

The IM Sign System™ of over 75 modu lar components offers a wide variety o holder sizes and replaceable inserts with radius or square corners. For catalog showing features available, writ on professional letterhead to: APC Graphics, Inc., 1876 DeFoor Ave., NW Building D, Atlanta, Ga 30318.

Hardwood floors shown in a 16-page full-color brochure include planks o laminated or solid oak and several par quet patterns of solid or laminated oa and solid teak. Descriptions includ





Circle **No. 304** on Reader Service Card

izes, colors, finishes, subflooring, and nstallation methods. Bruce Hardwood 'loors.
Circle 229 on reader service card

Prefabricated roof expansion joints are lescribed in a four-page brochure. Installation instructions are included, long with detail drawings of roof-to-vall and roof-to-roof methods of nounting. Data tables of physical properties and long- and short-form pecifications are provided. Nervastral Waterproofing Products, Rubber & Plastics Compound Co., Inc.
Circle 230 on reader service card

Heavy-duty SS-40 fence pipe, triple oated for longer life, is said to have greater strength and greater resistance o corrosion than Schedule 40 pipe. The old-rolled steel pipe has a first coating of hot-dipped zinc, then a zinc chromate protective layer. A final clear thermoplastic polyurethane coating is electrotatically applied. The pipe is described n a four-page brochure, which includes graphs of salt spray tests and bending trength comparison. Specifications are lso provided. Allied Tube & Conduit.
Circle 231 on reader service card

Washerless faucets for kitchen and bath are shown and described in a 20-page, full-color brochure. There are single-ever and two-handle faucets. Finishes are chromium plating, gold plating, satin gold, and antique brass. Several types of showerheads are shown, along with special purpose faucets. Delta Faucet Co.
Circle 232 on reader service card



Skylights and heat and smoke vents, used as part of energy-efficient design, are shown in a 20-page brochure. There are custom, standard, structural, and curb-mounted skylights and automatic heat and smoke vents. Detail drawings illustrate methods of installation. Charts show sizes available, and product specifications are provided. Plastico, Inc.
Circle 233 on reader service card

The Garden Door™, a patio door, combines the natural insulating qualities of wood with ¾-in. tempered insulating glass. Doors are treated with a wood stabilizing agent and sealant for low maintenance cost. Four-page brochure illustrates the door, discusses features and options, and provides specifications. Horizontal and vertical section details are included. Temple Products, Inc.
Circle 234 on reader service card

Cedar siding and roofing of individual shakes and shingles bonded to a wood backing is more quickly installed and more economical than applying separate shakes and shingles. Both roofing and siding come in 8-ft lengths. A four-page brochure discusses the advantages of using panels, illustrates typical installations, and shows fancy cuts available. Suggested specifications and a selector chart are included. Shakertown Corp.
Circle 235 on reader service card

Building materials

Major materials suppliers for buildings that are featured this month, as they were furnished by the architects.

Municipal Control Building, Quail Valley Utility District, Missouri City, Tx (p. 58). *Architects: Taft Architects, Houston.* Tile: H. & R. Johnson (England). Aluminum windows: Living Window. Insulation: Owens-Corning Fiber-
[*Materials continued on page 124*]

PORCH-LIFT™

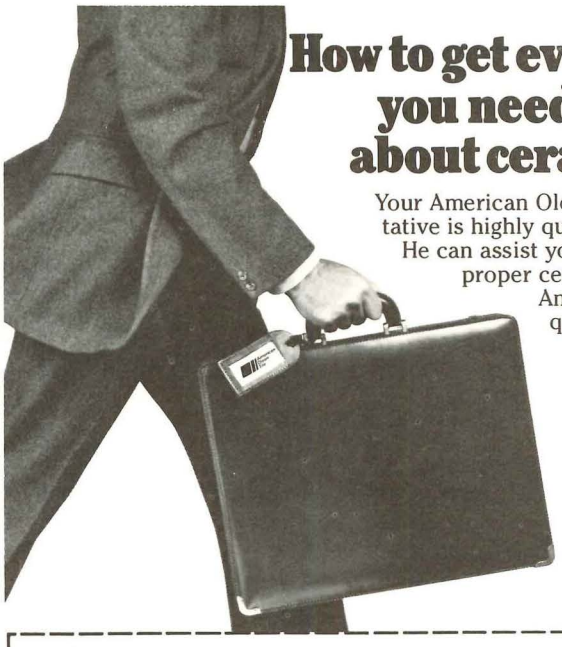


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☐ Have your sales representative call. ☐ Send me your new catalog.

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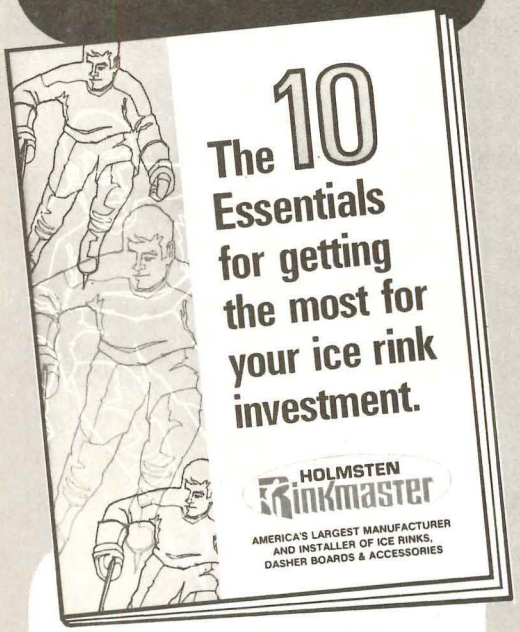
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Materials continued from page 123

glas. Paint: PPG. Locks: Schlage Lock Co. Exterior lighting: Prescolite. Interior lighting: Swivelier. Plumbing fixtures: American-Standard. Electric heating: Gaffers & Stadler. Desks: Gunlocke. Files: AM Bruning. Chairs: Stendig. Blinds: Levolor.

Steuart Building, St. Albans School, Washington, DC (p. 64). *Architects: Keyes, Condon & Florance, Washington, DC.* Steel bar joists: Southern Iron Works. Quarry stone: Stoneyhurst Quarries. Steel windows: Hopes Windows. Aluminum entrance doors: Kawneer. Wood interior doors: Eggers. Carpet: Lees. Terne-coated stainless steel roof: Follansbee Steel Corp.

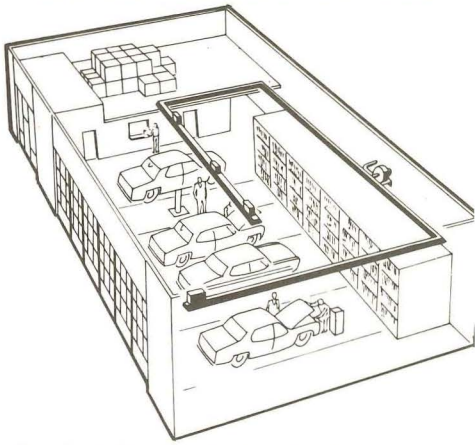
Olean Central Fire Station, Olean, NY (p. 66). *Architects: Werner Seligmann & Associates, Cortland, NY.* Lightweight metal frame: United States Steel. Exterior wall panels: Johns-Manville. Steel sash: Hope's Windows. Skylight domes: Wasco. Hollow metal doors: Republic. Overhead doors: Overhead Door Corp. VAT: Armstrong. Paint: Sherwin Williams. Lockers: Republic Steel. Lighting: Miller. Plumbing and sanitary: American-Standard, Sloan, Sanymetal, Bradley. Heating: Trane. Air conditioning: Singer. Temperature control: Honeywell.

Knoll International, New York Showroom, New York City (p. 72). *Architects: Venturi, Rauch and Scott Brown, Philadelphia.* Wall partitions: U.S. Gypsum. Ceiling surfacing: U.S. Gypsum. Carpet: General Felt Industries, Dylan Carpet. Lighting (incandescent): Lightolier. Acrylic conference room ceiling: Cutler Sign Advertising. Graphics, including trompe l'oeil wall: Seaboard Outdoor Advertising.

Knoll showroom, Boston (p. 78). *Architect: Gwathmey/Siegel & Associates, New York.* Furniture and linen-covered tackboard: Knoll. Paint: Benjamin Moore. Gypsum board: U.S. Gypsum. Carpet: General Felt. Slate: Vermont Structural Slate. Lighting: Contemporary Ceilings, Lightolier, University Blink. Cabinetwork: Cliftondale Woodworking. Blinds: Levolor. Display system: Kalutex.

Sanctuary Addition, Lake Shore Christian Church, Euclid, Oh (p. 70). *Architects: William A. Blunden, Robert A. Barclay Associates, Cleveland, Oh.* Laminated roof beams: Timberweld Mfg. Wood windows: Rolscreen Co. Aluminum skylights and doors: Kawneer. Carpet: Bigelow. VAT: Armstrong. Asphalt roofing shingles: GAF. Paint, stain: Olympic, Pratt & Lambert. Hardware: Schlage, LCN, Door-O-Matic, Rockwood. Lighting: NL Corp., Gotham. Toilet stalls: Sanymetal Prod. HVAC: Lennox Ind. Communion tables: Leiden Cabinet. Pews: Sauder Mfg. Choir chairs: Claud Bunyard. Venetian blinds: Levolor.

When a CO-RAY-VAC Heating System goes up, watch heating costs go down as much as 50%!



Developed in 1963, Co-Ray-Vac is a fully vented, low intensity infrared heating system. It is used primarily for new or retrofit installations in industrial or commercial buildings.

Low Intensity Unlike glowing red "high intensity" infrared heaters, our system is a series of enclosed burners connected by radiant tubes or pipes. This unique design efficiently heats not only large areas like factories and airplane hangers but also offices, stores and restaurants.

Infrared Heats like the sun. Radiant heat is emitted from overhead tubes but not released until it strikes people or objects at floor level. Air temperature is raised when these objects give off heat. Heat is not wasted at roof level. Comfort is dramatically increased because the system provides draft free heat. It bathes an entire area in warmth.

Gas-Fired Does not use oil. Operates on natural or LP gas. Extremely high combustion efficiency, in the range of 90%, coupled with infrared heating principles, slashes fuel consumption. Users report fuel savings up to 50% over conventional heating systems.

Fully Vented All products of combustion vented outside of building. Saves fuel because extra ventilation to expell condensation caused by combustion is not needed.

Ask the Man Who Owns One Write or phone for information and names of users in your area.

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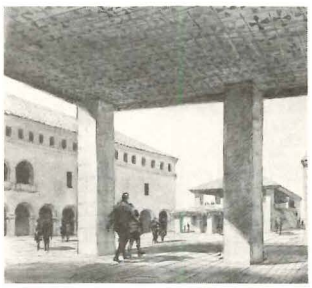
P/A in August

Coming next month



Tim Street-Porter

Miami and Miami Beach will be the subjects of an examination of urban development and its control—starting from basic economic and political factors, through planning policy, to proposals for building and preservation.



Two industrial buildings in England by Farrell/Grimshaw will be presented, with a discussion of the firm's high-tech, plug-in structural systems.



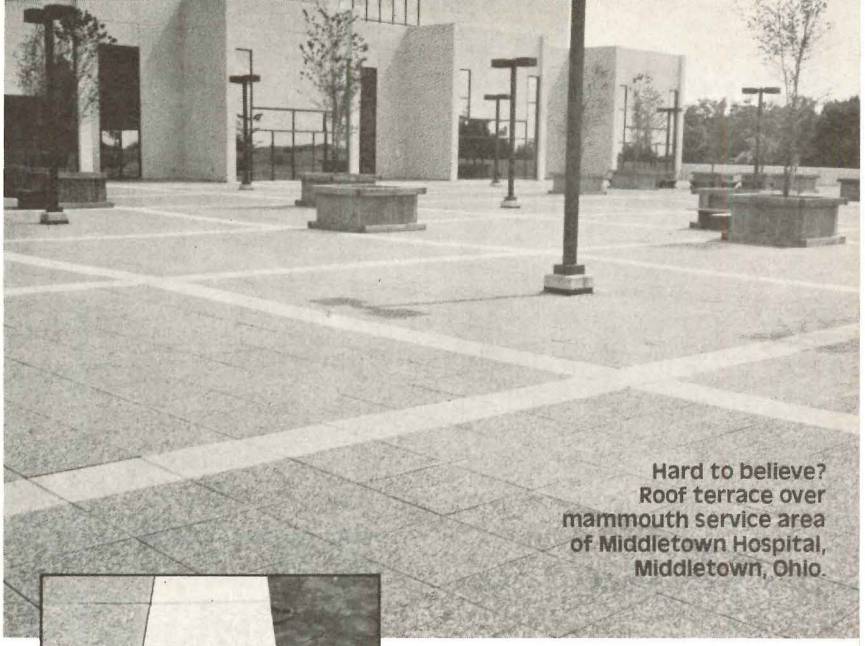
Housing in Vancouver's ambitious False Creek development will be reviewed. One among several parcels designed by local firms, the portion by Downs/Archambault shows response to user needs in both planning and imagery.

These are just some of the varied contents in P/A's August issue.

P/A in September will be a special theme issue on the subject of **International Interior Design.**



Downs/Archambault



Hard to believe? Roof terrace over mammouth service area of Middletown Hospital, Middletown, Ohio.



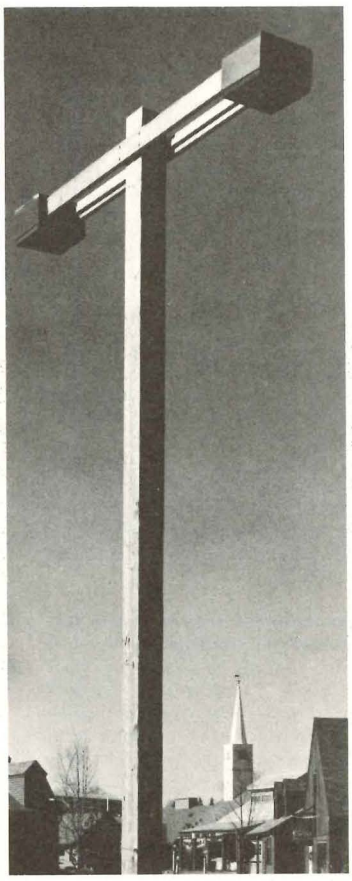
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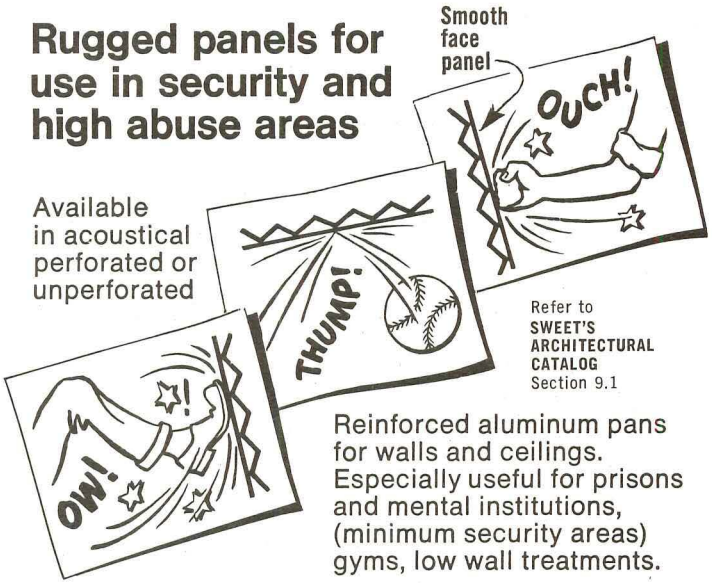
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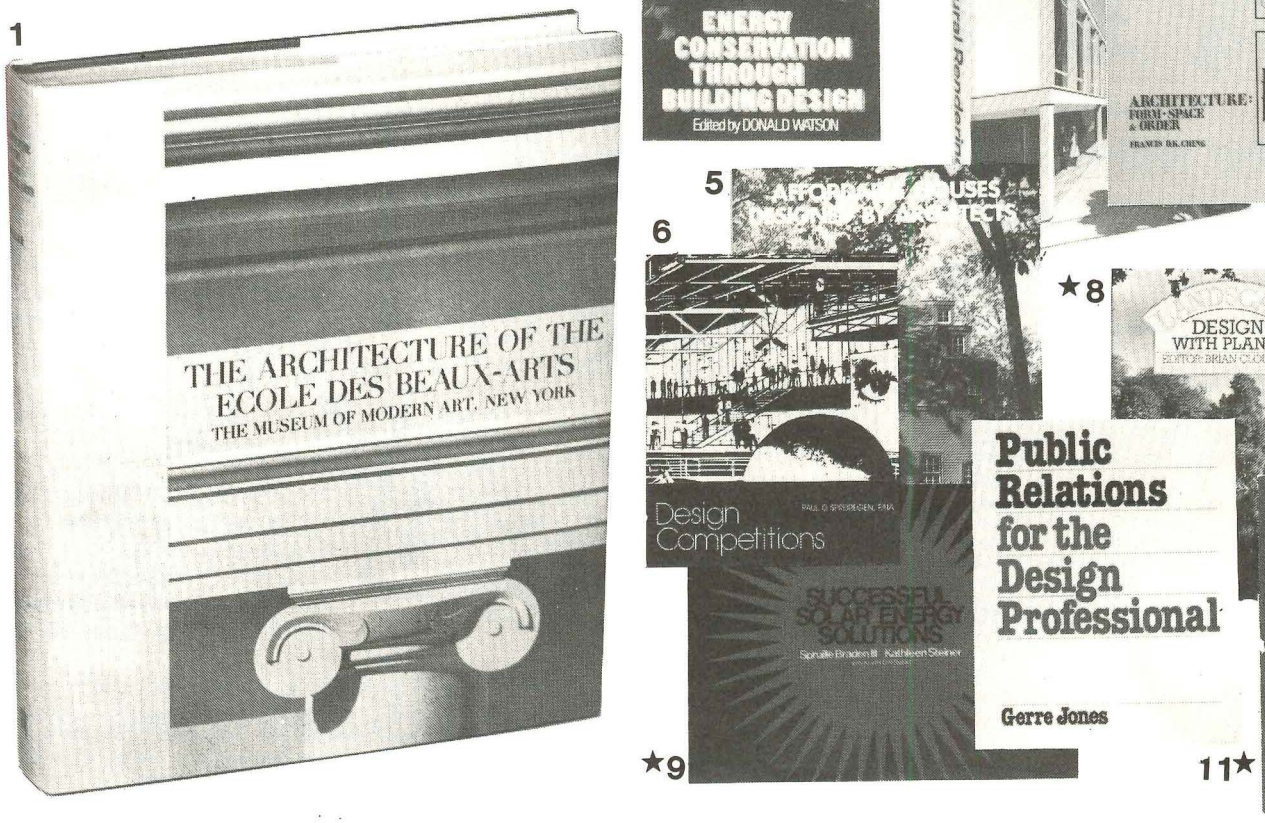
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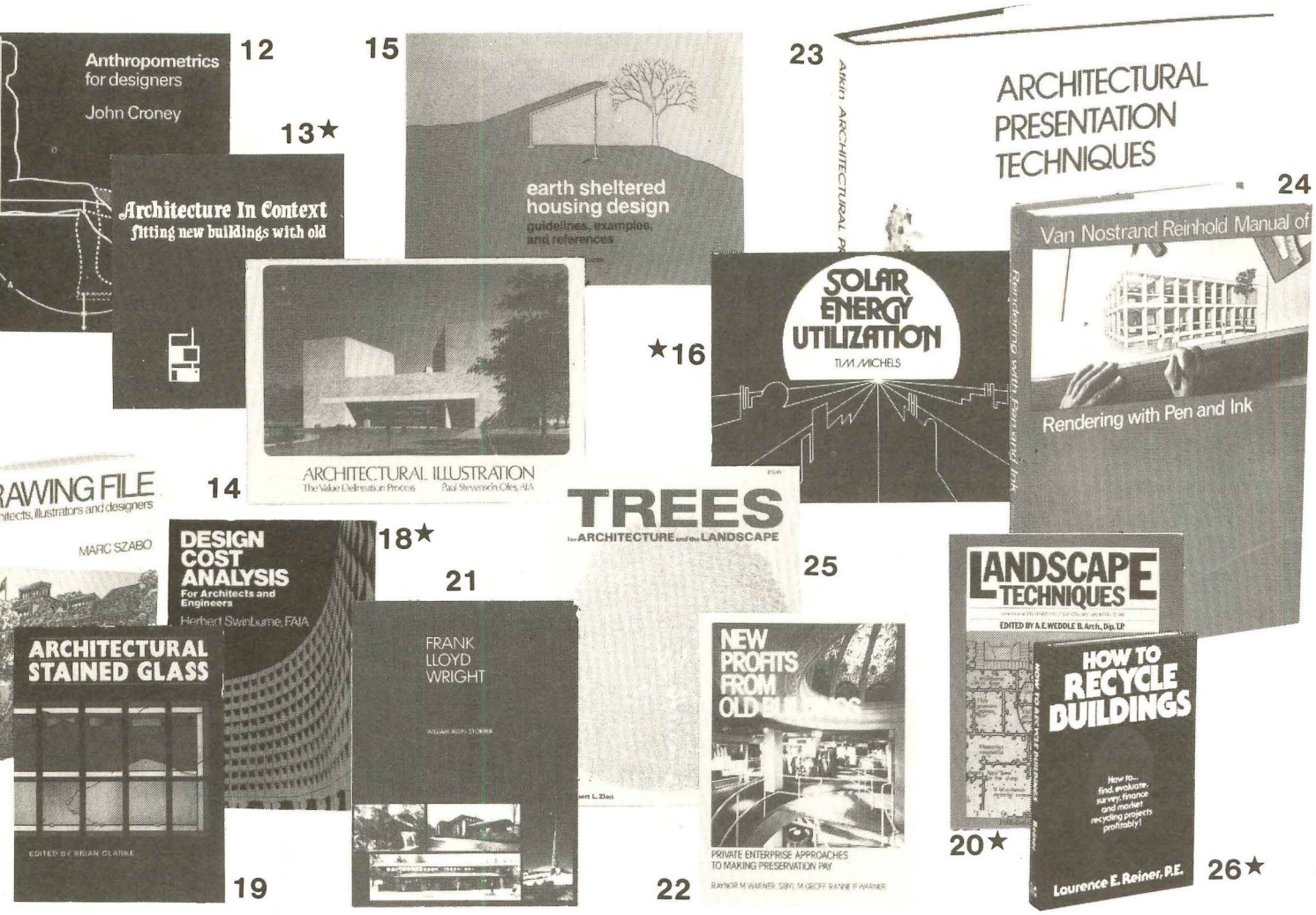
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Architect: Arthur Hugh Kensler, A.I.A., Los Angeles, CA
General Contractor: J. R. Slaught Construction Co., Irvine, CA
Framing Contractor: W. C. Froelich, Inc., Buena Park, CA

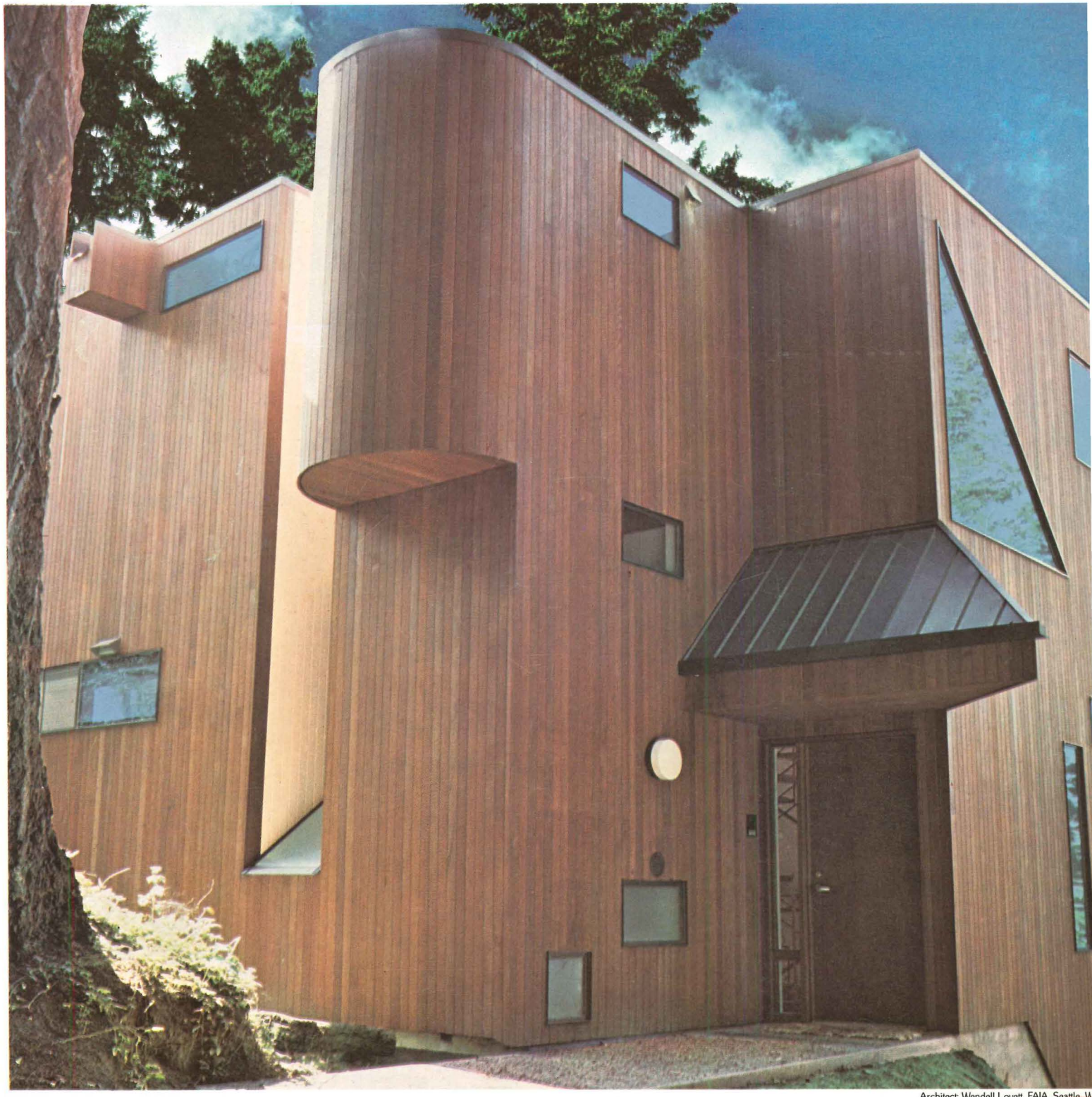
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Architect: Wendell Lovett, FAIA, Seattle, W

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